South African Medical Journal
Suid-Afrikaanse Tydskrif vir Geneeskunde
P.O. Box 643, Cape Town Posbus 643, Kaapstad

Cape Town, 7 April 1956 Weekly 2s. 6d. | Vol. 30 No. 14 | Kaapstad, 7 April 1956 Weekliks 2s. 6d.

CONTENTS — INHOUD

Die Snykundige Manipulasie van die Buislose Klierstelsel in die Behandeling van Prostaatkanker. *J. N. de Klerk, B.Sc., M.B., Ch.B., F.R.C.S. (Edin.)* 333

Passing Events : In die Verbygaan 336

Editorial : Van die Redaksie

Medical Journals in South Africa 337

Mediese Tydskrifte in Suid-Afrika 337

The Incidence of Breast Feeding on Discharge from Hospital of European, Coloured, Bantu, and Indian Infants. *Eva J. Salber, M.D., D.P.H.* 339

A Neurological Syndrome in Children Recovering from Malnutrition. *E. Kahn, M.D., M.R.C.P.E., D.C.H.* 345

Half Yearly Meeting of the South African Medical and Dental Council 345

The Doctor's Right to Dispense his Own Medicines 347

The South African Medical and Dental Council : New Rules for the registration of Psychologists and Psychometrists 348

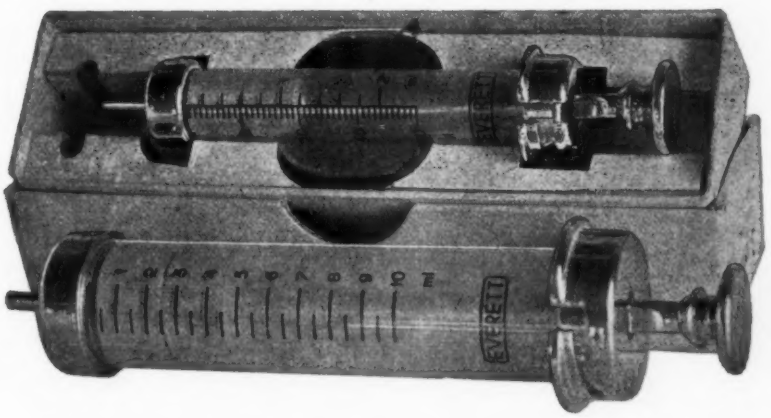
New Preparations and Appliances : Nuwe Preparate en Toestelle 350

Reviews of Books : Boekresensies 351

Correspondence : Briewerubriek 352

THE **NEW** SYRINGE

EVERETT'S LAMINEX RECORD TYPE



The Pistons, having the same co-efficient expansion as the barrels, ensure the barest minimum of breakages.

Clearest graduations.

Glass barrels made to withstand temperatures up to 200°C.

1c.c./20mm.	2c.c./40mm.	5c.c.	10c.c.	20c.c.		
6/6	**7/6**	**10/6**	**12/6**	**14/6**	Central	Nozzles.
—	—	**10/6**	**12/6**	**14/6**	Side	"

GURR SURGICAL INSTRUMENTS (Pty.) Ltd.

Harley Chambers - Kruis Street - P.O. Box 1562 - Johannesburg

Please Support Our Advertisers — Ondersteun Asseblief Ons Adverteerders

THE NEW SQUIBB PRODUCT

FOR THE TREATMENT OF . . .

DISSEMINATED SCLEROSIS

PARAPLEGIA

HEMIPLEGIA

RHEUMATIC DISORDERS

CHOREO-ATHETOSIS

TOLSERAM

Mephenesin Carbamate—Squibb

Literature gladly sent on request.

E. R. SQUIBB & SON, United Kingdom

Further information and Literature is available from

PROTEA PHARMACEUTICALS LIMITED

7 NEWTON STREET, WEMMER, JOHANNESBURG. P.O. BOX 7793. TEL. 33-2211.
ALSO AT CAPE TOWN, PORT ELIZABETH, EAST LONDON AND DURBAN.

South African Medical Journal
Suid-Afrikaanse Tydskrif vir Geneeskunde
P.O. Box 643, Cape Town — Posbus 643, Kaapstad

Cape Town, 7 April 1956 — Weekly 2s. 6d. — Vol. 30 No. 14 — Kaapstad, 7 April 1956 — Weekliks 2s. 6d.

DIE SNYKUNDIGE MANIPULASIE VAN DIE BUISLOSE KLIERSTELSEL IN DIE BEHANDELING VAN PROSTAATKANKER*

J. N. DE KLERK, B.SC., M.B., CH.B. (KAAPSTAD) F.R.C.S. (EDIN)

Kaapstad

U besef natuurlik dat daar 'n baie noue verband bestaan tussen die groeikrag en funksie van die prostaat en die afskeidings van die endokrinestelsel. Hierdie afskeidings is onontbeerlik vir die normale werking van die prostaatklier. Inteendeel egter is daar geen endokrine-afskeiding, direk afkomstig van die prostaat, aan ons bekend nie. Alle navorsing op hierdie gebied dui aan dat die prostaat een van die sogenaamde eindorgane is waarop die afskeiding van die endokrinestelsel gemik is en dat die prostaat geheel en al vir sy biologiese werking afhanklik is van die afskeidings van die hipofise, die byniere en die testes. Die rol wat die testes en byniere speel is aan u almal bekend, maar ek meen dat die invloed wat die hipofise op die prostaat het verder uiteensetting nodig het.

Die hipofise het beide 'n direkte sowel as 'n indirekte effek op die prostaatklier. As ons eers die indirekte effek bestudeer, dan vind ons dat daar 'n wederkerige verhouding bestaan tussen die hipofise en die geslagskliere van alle diere, insluitende die mens. Dit is byvoorbeeld in die laer diere bekend dat verwydering van die hipofise tot gevolg het dat daar 'n vinnige kwyning van die testes plaasvind, met involusie van die androgeenproduserende sowel as die spermatogeniese elemente van die klier. As ons ons aandag bepaal by die androgeenproduksie van die testes, dan vind ons dat hierdie produksie afhanklik is van die afskeiding van die pituïtêre gonadotrofiese hormone. In die vroulike geslag word op die oomblik 3 uitgesonder, naamlik die FSH, LH en luteotrofien (of prolactin). Die hormoon wat ooreenkomstig met LH is, is as ICSH in die man bekend en dit is hierdie hormoon, deur die hipofise afgeskei, wat verantwoordelik is vir die produksie van testikulêre androgeen, deur 'n direkte werking op die Leydig-selle. Ek neem aan dat u vertroud is met die feit, wat klinies sowel as eksperimenteel vasgestel is, dat testikulêre en tot 'n minder mate die bynier-androgeen, noodsaaklik is vir die groei van die prostaatklier. Dus, om op te som, bestaan die indirekte meganisme waarvan ek melding gemaak het uit twee kettings, naamlik hipofise-testes-prostaat en hipofise-bynier-prostaat. As ons die hipofise verwyder, sny ons die bron van androgeen-produksie by sy oorsprong af.

Naas die indirekte meganisme bestaan daar ook nog 'n direkte meganisme, wat grotendeels as gevolg van die werk van Scott en Grayhack, by die Johns Hopkins-hospitaal ontbloot is.[1] Hierdie twee het gevind dat die prostaatgewig in jong gekastreerde rotte, waarvan die hipofise verwyder is, glad nie tot dieselfde mate deur testosterone beïnvloed word nie as in ooreenkomstige groepe rotte waarvan die hipofise nie verwyder is nie; met ander woorde, die toevoeging van testikulêre androgeen, het nie al die prostaat-beïnvloedende hormone verplaas in die gekastreerde rotte waarvan die hipofise verwyder is nie. Scott en Grayhack het geredeneer dat daar 'n addisionele faktor in die hipofise moet wees wat 'n direkte uitwerking op die ontwikkeling van die prostaat het. Enkele maande voor hulle het Sonnenberg rapporteer dat daar groot hoeveelhede luteotrofien, of prolactin, in die prostaat is.[2] Hierop het Scott en Grayhack hulle eerste eksperiment herhaal, maar in die groep rotte waarvan die hipofise verwyder was, het hulle

TABEL I. DIE UITWERKING VAN ENDOKRINE-MANIPULASIE OP DIE PROSTAATGROEI VAN PRE-PUBERTEIT ROTTE

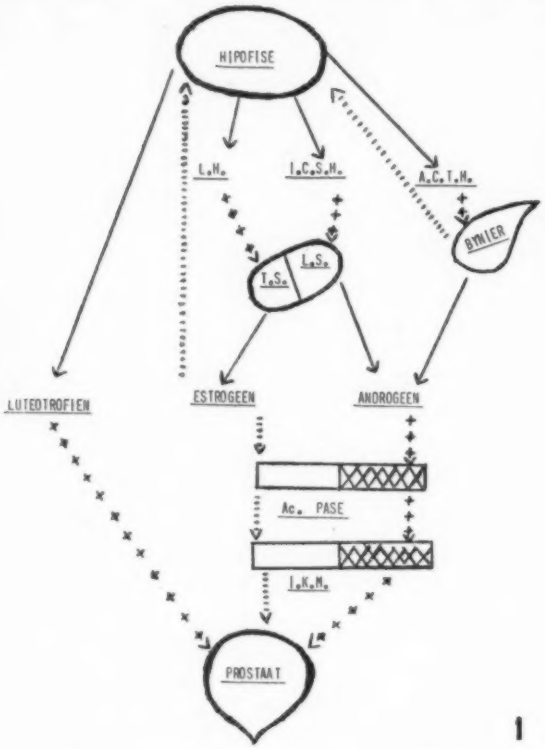
(Scott en Grayhack. Naasteby syfers van natgewig)

	mg.
Kontrole	300
Gekastreerde	150
Hipofisektomie-kastrasie	100
Kastrasie Testosterone	290—320
Hipofisektomie-kastrasie Testosterone	200—230
Hipofisektomie-kastrasie Luteotrofien	190—210
Hipofisektomie-kastrasie Testosterone Luteotrofien	330—350

* 'n Referaat gelewer tydens die Suid-Afrikaanse Mediese Kongres, Pretoria, Oktober 1955.

ook luteotrofien bygevoeg. Hulle bevindinge was dat die gekastreerde rotte waarvan die hipofise verwyder is met die gelyktydige administrasie van testosterone en luteotrofien normale prostaatgewig as gevolg gehad het (Tabel I).

Prostaat kankerselle besit hoogontwikkelde karaktertrekke, wat baie ooreenstem met die biologiese karaktertrekke van die normaal volgroeide prostaatsel. Hierdie was trouens die premiese waarop Huggins sy welbekende behandeling vir prostaatkanker, verwydering van die testes, gebaseer het.[3] Dus is dit duidelik dat, waar hierdie premiese gestaaf is deur ons kliniese ondervinding,



1

ons met goeie rede die voorafgaande gewaarwordinge in verband met die hipofise en die normale prostaat kan toepas op die neoplastiese prostaat. Ten laaste moet ons ook onthou dat daar 'n steeds groeiende gevoel onder die endokrinoloë is dat die sogenaamde groeifaktor van die hipofise 'n vername rol in die patologiese ontwikkeling van kanker as sulks speel. Ek het hierdie paar feite opgesom op die kaart in Fig. 1.

Kom ons ondersoek nou die verskeie endokrinemanipulasies in die lig van hierdie paar feite wat ek genoem het.

Kastrasie

Hierdie metode van prostaatkanker-behandeling is aan u almal bekend en is grotendeels gebaseer op die kliniese en eksperimentele feit dat daar 'n kwyning van die normale prostaat plaasvind na kastrasie. Die rede vir hierdie kwyning is grotendeels deur Huggins,[4] ondersoek en hy het tot die gevolgtrekking gekom dat dit aan die verwydering van die androgeenproduserende selle van die testes te wyte is. Gepaard met hierdie behandeling het die gebruik van estrogeen ontwikkel.

Verskeie waarnemers het destyds geglo dat estrogeen 'n anti-androgeen effek op die prostaat het.[5] Hierdie verklaring het egter onvoldoende geblyk, omrede die feit dat etlike jare hierna bevind is dat die testes beide androgeen sowel as estrogeen produseer! Dit was derhalwe nie alleen 'n kwessie van androgeenverwydering nie. In die lig van hierdie feite is Huggins se verdere standpunt dat hervatting van die kankergroeiing alleenlik te wyte was aan 'n vermeerderde androgeenproduksie van die bynier ook nie standhoudend nie, aangesien dit baie duidelik is dat androgeen nie die enigste faktor in die prostaat se groei is nie.

Waarom het kastrasie dan alleenlik 'n tydelik heilsame effek? Ten eerste veroorsaak die verwydering van die androgeen-produksie atrofie. Ons moet egter onthou dat 'n groot bron van estrogeen terselfdertyd ook verwyder is. Estrogeen se werking geskied nie as gevolg van 'n anti-androgeen-effek nie. Dit inhibeer die hipofise. Gevolglik na kastrasie, word die hipofise onthef van die kontrolerende inhibisie van die testes-estrogeen. Hierdie vermeerderde aktiwiteit van die hipofise, met die verhoogde stimulasie van die bynierkorteks en vermeerderde produksie van bynier-androgeen, is waarskynlik een van die oorsake vir die hervatting van die kankergroei na kastrasie. Uit hierdie paar feite is dit derhalwe duidelik dat kastrasie, alleen, nie so 'n heilsame effek het as kastrasie *met* estrogeen-administrasie nie, en dit word bewaarheid deur die kliniese bevindinge van Nesbitt[6] en andere. Ons mag net hier terloops noem dat orkidektomie 'n waarneembare effek het op die hipofise waar ons die sogenaamde kastrasieselle sien. Dit is dus duidelik dat die effek van estrogeen 'n bietjie meer ingewikkeld is as wat eers vermoed is. Om dit nog meer ingewikkeld te maak, wil ek net melding maak van Hopkins[7] se werk. Hierdie navorser het manometries bewys dat estrogeen 'n inhiberende effek op die suuragtige serum phosphatase het. Hudson[8] weer het bewys dat hierdie stof 'n noodsaaklike gistingstof in die intermediêre koolhidraat-metabolisme van die prostaat is. Dus oefen estrogeen ook 'n tweërlei effek uit—direk op die prostaat; indirek—op die hipofise. Ten laaste weet ons volgens die werk van Grayhack en andere[9] dat beide estrogeen sowel as androgeen deur die lewer verwerk word. Teoreties dus is die effek van hierdie stowwe op die prostaat 'n faktor van die funksie van die lewer.

Bilaterale Adrenalektomie

Hierby sal ek nie lank stilstaan nie: ek wil net 'n paar feite tot u aandag bring.

Huggins, die voorstander van hierdie terapie, gebruik dit nou nie meer nie, omrede die swak resultate. Van wat ek vooraf gesê het, is dit duidelik, dat hierdie operasie ontwikkel is op 'n verkeerde premiese en dit is derhalwe glad nie verbasend dat dit slegs 'n tydelike effek op die kankergroei het nie. Dieselfde argument is geldig as ons die Grayhack-Harris-modifikasie van hierdie operasie

in oënskou neem. Hierdie twee here het probeer om die androgeen-produksie van die bynier uit te skakel deur die bynierveenbloed deur middel van 'n operatiewe kortsluiting direk na die lewer te stuur, waar dit, soos u weet, deur die lewer ontbind word.[10]

As ons nou al hierdie verskeie metodes van behandeling in oënskou neem, is dit duidelik waarom hulle net met gedeeltelike sukses bekroon is. Nie een van hulle verwyder die luteotrofien-produserende element van die hipofise nie. Daar is net een gewisse metode waardeur die androgeen-produksie van die testes en die bynier sowel as die luteotrofien-afskeiding van die hipofise verwyder kan word, en dit is deur hipofisektomie.

Hipofisektomie

Gedurende die afgelope 5-10 jaar is daar heelwat eksperimentele werk op rotte gedoen wat duidelik bewys het dat die groei van rotkanker geheel en al geïnhibeer kan word deur die hipofise te verwyder. Met hierdie werk as basis, en ook om die probleem verder te ondersoek, het prof. W. W. Scott, in samewerking met prof. J. Earl Walker, in 1948 die eerste hipofisektomie vir onkontroleerbare prostaatkanker onderneem. Hierdie operasie is gedoen voordat cortisone verkrygbaar was en ten spyte van die toediening van groot hoeveelhede adrenokortikale-ekstrak en DOCA, het die pasiënt op die 11de dag as gevolg van bloedsuikervermindering gesterf. Die tydperk was te kort om enige effek op die kanker waar te neem.

Nadat cortisone vrylik bekombaar was, het hulle in 1951 weer probeer. Met verloop van tyd is 5 verdere gevalle gedoen. Die getal is klein gehou en elke geval is deeglik bestudeer. Die resultaat word gewys op die volgende kaart (Tabel II). Van die 5 gevalle wat gedoen

TABEL II. HIPOFISEKTOMIE VIR PROSTAATKANKER

Datum	*Kliniese Resultate*	*Effek op Kanker*	*Lewens-duur*	*Oorsaak van Dood*
1948	? Algehele Hipofisektomie	Tydverloop te kort	11 dae	Bloedsuiker-tekort
1951	Algehele Hipofisektomie	Merkbare ver-betering	160 dae	Na-operatiewe embolus
1952	Onvolledige Hipofisektomie	Geen verbetering	33 dae	Prostaatkanker
1952	?	?	2 dae	Dood na operasie
1952	Algehele Hipofisektomie	Merkbare verbetering	368 dae	Breinbloeding
1953	Onvolledige Hipofisektomie	Geen verbetering	281 dae	Prostaat-kanker

is na cortisone-toediening, is een dood op die derde dag na operasie. Al 4 ander gevalle het vroeër of later ook tot lykskouing gekom. Merk op hoe lank hulle gelewe het. Ek wil net op hierdie tydstip benadruk dat in nie één van die gevalle, die hipofise totaal verwyder is volgens mikroskopiese ondersoek nie. In 2 gevalle egter het kliniese toetse die indruk gegee dat dit geheel en al verwyder is en in hierdie 2 gevalle was daar 'n baie goeie kliniese verbetering. Een pasiënt is omstreeks 6 maande na die operasie dood, die ander meer as 'n jaar later. Nie een van hierdie twee gevalle is aan prostaatkanker dood nie. Die ander 2 gevalle het beide klinies sowel as histologies nog baie van hulle hipofise oorgehad. Beide het swak reageer en altwee is later dood aan prostaatkanker.

Ek sou graag die 2 gevalle wat goed reageer het, verder bespreek. Die voor- en na-operatiewe behandeling sien u op Tabel III. Die eerste geval was 'n man met wydverspreide kanker. Hy het voorheen estrogeen-terapie gehad, maar andersins alleenlik simptomatiese

TABEL III. PLAASVERVANGENDE TERAPIE VIR HIPOFISEKTOMIE VIR PROSTAATKANKER

Dag	*Cortisone* (mg.)	*NaCl* (g.)	*Bloed* (c.c.)
−1	100		500
0	150	4·0	500
+1	200	4·0	
+2	150	4·0	
+3	150	0·5	500
+4, 5, 6	150		
+7, 8, 9	100		
+10, 11, 12, 13	75		
+14 en daaropvolgende dae	50		
	50 (per mond).		

behandeling. Sy verbetering was, soos u sien, verbasend. Sy kliniese toestand voor en na die operasie is weergegee in Tabel IV. Die pasiënt is 156 dae na die operasie weer tot die hospitaal toegelaat met 'n diagnose van akute blindederm-ontsteking, waarvoor 'n laparotomie gedoen is. Op die 4de na-operatiewe dag, is hy dood aan 'n pulmonêre embolus. By die hieropvolgende K.P.K.

TABEL IV. KLINIESE BEVINDINGS IN 'N 72-JARIGE MAN MET VERSPREIDE PROSTAATKANKER VOOR EN NA HIPOFISEKTOMIE

Voor	*Na*
Kwaai rugpyn	Geen
Kwaai pyn in linker bokaak	Geen
Linker ooglid-verslapping	Geen
Linker kyker verwyd	Nog dieselfde
Geen eetlus	Goeie aptyt
20 lb. verlies in gewig	18 lb. gewig vermeerder
Blaas-obstruksie met onbeheerbare urinering	Normale urinering-ritme 20 c.c. R.U.
Prostaat 2 maal vergroot, klip-hard, onbeweeglik, saadbuise verhard, laterale groewe uitgewis.	Prostaat nie voelbaar deur betastende vinger nie.

het die beroemde patoloog, dr. Arnold Rich, die volgende te sê gehad: ‚The prostate shows very marked atrophy of the glandular elements with a corresponding relative increase in the stroma. There are epithelial tumour cells, infiltrating in lines and small groups, and for the most part these appear to be shrunken. Looking at such places, one would be tempted to conclude, that the hypophysectomy has resulted in shrinkage and disappearance of the tumour cells. However, immediately adjacent to shrunken cells, one can find nodules in which tumour cells are well preserved.' Dieselfde verskynsel is ook teëgekom in die areas van sekondêre groeisel.

Die tweede geval was 65 jaar oud en het ook dieselfde kliniese resultaat gehad. Binne 382 dae na sy operasie, is hy weer toegelaat met 'n diagnose van bloeding op die brein, wat bevestig is in die lykskouing 6 dae later. In hierdie geval was die bevindinge by die lykskouing dieselfde as in die eerste geval.

Ten slotte, wil ek graag net 'n paar aanmerkings maak oor verskeie aspekte van die na-operatiewe verloop:

Toe ons die eerste geval gedoen het, het ons 'n bietjie in die donker rondgetas, maar nadat ons geweet het wat om te verwag, was hulle myns insiens baie makliker om te hanteer as 'n adrenalektomie-geval. In beide gevalle waar die hipofise deeglik verwyder is, het daar 'n baie kwaai binneselse natriumretensie binne enige ure na die operasie plaasgevind. Die urinêre natriumuitskeiding was vir etlike ure heeltemal afwesig. Ek dink nie dat dit die gevolg was van die cortisoneadministrasie nie, aangesien dit ten spyte van die aanhoudende cortisone-administrasie spontaan herstel het, na 24 uur. Hierdie natriumretensie het gepaard gegaan met 'n baie hoë urine-uitskeidingsyfer vir die eerste 36 uur. Die eerste geval byvoorbeeld moes 12 liter vloeistof binne 24 uur ontvang om die waterewewig te bewaar. Hierdie verskynsel was natuurlik nie onverwags nie, aangesien dieselfde verskynsel voorheen gewaar is, maar om dit in samevloeiing met binneselse natriumretensie te hê het die saak 'n bietjie bemoeilik. Ten spyte van ons bekommernis, het dit vanself reggekom sonder dat dit nodig was om in te gryp. Daar was ook 'n kwaai naoperatiewe bloedsuikervermindering, wat ons egter maklik kon beheer deur middel van binneaarse glukose en later deur glukose per mond te gee. 'n Maand na die operasie het die bloedsuiker 'n ewewig van 65 mg.% bereik. Daar was natuurlik 'n kwaai graad van bynieratrofie, maar beide pasiënte kon maklik beheer word deur cortisone en soutbehandeling. 'n Eienaardige verskynsel was dat die skildklierfunksie, soos ons dit vasgestel het deur middel van gewone toetse asook deur die opname van radioaktiewe jood, nie besonder verminder het nie. Selfs 'n jaar na die operasie het daar nog geen miksedeem ontwikkel nie. Beide pasiënte was negers en albei het aanmerklik witter geword, blykbaar as gevolg van verdrukte melanofooraktiwiteit. Geeneen van die pasiënte was enigsins verstandelik of geestelik gekrenk nie. Beide was oujongmans, wat vir hulself moes sorg en daartoe was hulle, in 'n woelige Amerikaanse wêreldstad, geheel en al in staat.

Ten slotte wil ek net benadruk, dat Professor Scott nie hipofisektomie aanraai in alle gevalle van onbehandelbare prostaatkanker nie. Daar is nog té veel wat ons nie weet nie aangaande die rol van die hipofise in die ontwikkeling van nie-kwaadaardige en kwaadaardige gewasse. Langs hierdie weë is dit egter vir ons moontlik om 'n beter begrip te kry van die moontlike middels wat ons kan gebruik in die bestryding van hierdie gevreesde siekte.

VERWYSINGS

1. Scott, W. W. (1953): J. Urol., **70**, 477.
2. Sonnenberg, M., Money, W. W., Keston, A. S., Fitzgerald, P. en Godwin, F. T. (1951): J. Clin. Endocr., **2**, 747.
3. Huggins, C., en Hodges, C. V. (1941): Cancer Res. **1**, 293.
4. Huggins, C., Masina, M. H., Eichelberger, L. en Wharton, J. D. (1939): J. Exp. Med., **70**, 543.
5. Huggins, C. en Clark, P. J. (1940): *Ibid.*, **72**, 747.
6. Nesbitt, R. M. en Baum, W. C. (1950): J. Amer. Med. Assoc., **143**, 317.
7. Hopkins, W. : *Persoonlike aanmerking.*
8. Hudson, P. B. en Butter, W. W. (1950): J. Urol., **63**, 323.
9. Grayhack, J. T. en Scott, W. W. (1951): Endocrinology, **48**, 453.
10. Grayhack, J. T. en Harris, A. P. (1955): J. Urol., **73**, 1.

PASSING EVENTS : IN DIE VERBYGAAN

Union Department of Health Bulletin. Report for the 7 days ended 22 March 1956.

Plague. Orange Free State: Two (2) Native cases in the Bothaville district. Diagnosis of one case confirmed by laboratory tests and diagnosis of the other case based on clinical grounds only.

Smallpox. Nil.

Typhus Fever. Cape Province. One (1) European case in the Queenstown Municipal area. Diagnosis based on clinical grounds only.

No further cases have been reported from the Glen Grey district since the notifications in Bulletin No. 8 of 23 February, 1956. This area may now be regarded as free from infection.

Epidemic Diseases in other Countries.

Plague: Nil.

Cholera in Calcutta (India); Chittagong, Dacca (Pakistan).

Smallpox in Kabul, Kandahar (Afghanistan); Moulmein, Rangoon (Burma); Phnom-Penh (Cambodia); Ahmedabad, Bombay, Calcutta, Delhi, Jodhpur, Kanpur, Madras, Mahé, Pondicherry (India); Dacca, Karachi (Pakistan); Nairobi (Kenya).

Typhus Fever in Kabul (Afghanistan).

* * *

Dr. Morris J. Cohen, 82, Medical Centre, Field Street, Durban, has been appointed convener of the Hobbies Section for the next Medical Congress to be held in Durban in September 1957. Dr. Julian S. Coller will be the secretary for this section. Medical hobbyists who intend to show their work or that of their families are requested to contact Dr. Coller, Bigden House, 505, Smith Street, Durban, as soon as possible.

* * *

The Council for International Organizations of Medical Sciences, 19 Avenue Kléber, Paris 16e (established under the auspices of WHO and UNESCO) has compiled a calendar of international congresses of medical sciences covering the remainder of 1956, 1957, 1958, and a few items in 1959 and 1960, 77 congresses in all.

Dr. A. I. Pitcher, M.B. Ch.B. (Rand), D.A. (Eng.) has joined Dr J. D. M. Barton in his specialist anaesthetic practice at 410 County Building, Church Street, Pietermaritzburg.

* * *

Members are reminded that they should notify any change of address to the Secretary of the Medical Association of South Africa at P.O. Box 643, Cape Town, as well as to the Registrar of the South African Medical and Dental Council, P.O. Box 205, Pretoria.

Failure to advise the Association can only result in non-delivery of the *Journal*. This applies to members proceeding overseas as well as to those who change their addresses within the Union.

* * *

Dr. E. Marjorie Higgs, M.D. (Lond.), D.P.H., has been appointed Registrar to the King Edward VIII Hospital, Durban.)

* * *

Westdene Products Scholarships. The winners of the awards for 1956 at the University of the Witwatersrand are: P. V. Weston (4th year), J. A. Blecher (5th year), and joint winners, I. Jacobson and D. Rabinowitz (6th year). The results at the other universities will be announced later.

* * *

The 4th International Congress on Diseases of the Chest,* Cologne, Germany, 19-23 August 1956. The main subjects of the Congress will be: Coronary diseases (diagnosis, pathophysiology and surgery), industrial diseases of the chest; tuberculosis; lung and heart function and tumours of the mediastinum. Special reference will be placed on surgery of coronary disease. The official languages are English, French, Spanish, and German. Further information may be obtained from the Congress Secretariat, Fourth international Congress of the American College of Chest Physicians, Köln-Deutz, Germany, Messeplatz. Application to submit scientific papers must be made before 30 April 1956.

* See *Journal* of 25 February 1956, Vol. 30, p. 200.

South African Medical Journal

Suid-Afrikaanse Tydskrif vir Geneeskunde

EDITORIAL

MEDICAL JOURNALS IN SOUTH AFRICA

Last week we ended an article *Journals of Medicine* at the production in 1847 of Ebden's *Cape Town Medical Gazette*, which was followed by a period of nearly 40 years during which no further venture was made into medical journalism in South Africa.

In 1884 the first *South African Medical Journal* was started at East London under the editorship of Dr. W. Darley Hartley, the pioneer of medical journalism in this country. For one year it was produced as a monthly and then it was changed into a 4-page weekly. The journal office was moved for a time to the village of Cathcart and then back again to East London. This journal finally came to an end after an existence of 5 years.[1]

A further interval followed, until in 1893 another *South African Medical Journal* was started as the result of action taken by the first South African Medical Congress, held in Kimberley. It was published in Cape Town by J. C. Juta and Company. The first editor was Dr. A. Edington, of Grahamstown, who after a few months was succeeded by Dr. G. G. Eyre, of Claremont, near Cape Town. Dr. Eyre, who continued as editor for over 5 years, was assisted by Drs. A. Edington, C. C. Elliott, E. B. Fuller, E. C. Long and W. T. Harris, who apparently acted as an editorial committee. This periodical ran as a monthly journal of 20-30 pages; it was described as the Journal of the South African Medical Association, though it was a privately owned undertaking. The editors put much energy and ability into the work,[1] but the difficulties were great, and were so much accentuated by the disorganization of the country by the war in 1899 that it was decided to suspend publication for the time being.[1]

The next journals to appear were Dr. Darley Hartley's *South African Medical Record*, which was first published in 1903, in Cape Town, and the *Transvaal Medical Journal*, which was brought out in Johannesburg in 1905. The *Medical Record*, having started as a monthly journal, was published twice a month from February 1906 until the end of 1926, running to over 500 pages a year. It continued successfully with Dr. Darley Hartley as its editor and proprietor until both the Cape Town

VAN DIE REDAKSIE

MEDIESE TYDSKRIFTE IN SUID-AFRIKA

Verlede week het ons 'n artikel, *Mediese Tydskrifte*, beëindig by die produksie van Ebden se *Cape Town Medical Gazette* in 1847, waarna daar 'n tydperk van byna 40 jaar verloop het toe geen verdere baanbreking in die mediese joernalistiek in Suid-Afrika gedoen is nie.

In 1884 is die eerste *South African Medical Journal* in Oos-Londen begin onder redaksie van dr. W. Darley Hartley, die baanbreker op gebied van die mediese joernalistiek in hierdie land. 'n Jaar lank is dit uitgegee as 'n maandblad, en toe is dit verander na 'n weekblad met 4 bladsye. Die hoofkwartiere is tydelik na die dorpie Cathcart verskuif, en toe weer terug na Oos-Londen. Na 'n leeftyd van 5 jaar is die blad gestaak.[1]

'n Verdere tussenpose het gevolg, totdat nog 'n *South African Medical Journal* in 1893 begin is as gevolg van stappe gedoen deur die eerste Suid-Afrikaanse Mediese Kongres te Kimberley. J. C. Juta en Kie. het dit in Kaapstad gepubliseer. Die eerste redakteur was dr. A. Edington van Grahamstad, wat na enkele maande deur dr. G. G. Eyre van Claremont, naby Kaapstad, opgevolg is. Dr. Eyre, wat vir langer as 5 jaar hierdie pos beklee het, was bygestaan deur drs. A. Edington, C. C. Elliott, E. B. Fuller, E. C. Long en W. T. Harris —hulle het blykbaar 'n redaksionele komitee gevorm. Hierdie tydskrif was 'n maandblad van 20 - 30 bladsye; hoewel dit 'n private saak was, was dit beskrywe as die ‚Journal of the South African Medical Association'. Die redakteurs het veel energie en bekwaamheid daaraan bestee,[1] maar hulle het met baie moeilikhede te kampe gehad, moeilikhede wat tot so 'n mate vererger was deur die desorganisasie van die land as gevolg van die 1899-oorlog, dat dit besluit is om publikasie tydelik te staak.[1]

Die volgende tydskrifte wat toe verskyn het, was dr. Darley Hartley se *South African Medical Record*, wat in 1903 in Kaapstad begin is, en die *Transvaal Medical Journal* wat in 1905 in Johannesburg gestig is. Die *Medical Record*, wat as maandblad begin het, is van Februarie 1906 tot aan die einde van 1926 twee keer per maand gepubliseer, en het meer as 500 bladsye per jaar beloop. Dit met welslae voortgegaan onder die redaksie van dr. Darley Hartley, die eienaar, totdat die Kaapstadse en die Johannesburgse tydskrifte saamgesmelt het om die nuwe *Journal of the South African Medical Association* te vorm.

and the Johannesburg journal were merged into the new *Journal of the South African Medical Association*.

The *Transvaal Medical Journal* was published by certain members of the Transvaal Medical Society who formed themselves into a non-profit-making publishing company. Its first editor was Dr. E. T. E. Hamilton, under whom the journal continued for 12 years.[2] He was followed by Dr. H. Watkins Pitchford for 2 years when, in 1919, Dr. G. D. Maynard took over the editorship. This he retained for 4 years, when he was succeeded by Dr. C. Louis Leipoldt, who served as editor for 3 years, until the journal was taken over by the Medical Association of South Africa. The name *Transvaal Medical Journal* was changed in 1913 to the *Medical Journal of South Africa*, under which name it continued to the end. When first published the journal was described as being 'published under the auspices of the Transvaal Medical Society', In 1912 this was altered to 'the Witwatersrand Division of the Transvaal Branch of the British Medical Association', and in 1913 (at the time when the journal changed its name) to 'the Witwatersrand Branch of the British Medical Association'. This ascription, however, was discontinued on and after November 1919 when, evidently as the result of a controversy which was running at that time between the policies of remaining with the B.M.A. or establishing an independent 'South African Medical Association', the journal came out with the statement, 'The shareholders of the Journal must dictate its policy.' This journal was still in vigorous activity in 1926, when it voluntarily decided to merge into the one single journal of the newly formed Medical Association of South Africa (B.M.A.).[2] Its monthly issue usually ran to 24 or 28 pages.

The new *Journal of the Medical Association of South Africa* (*BMA*) was founded then in 1927, incorporating the *South African Medical Record* and the *Medical Journal of South Africa*. Dr. Leipoldt, editor of the last-named, was appointed editor of the new journal as well as secretary of the reconstructed Medical Association, and on Dr. Darley Hartley of the *Medical Record*, now advanced in years, the title of emeritus editor was conferred. The journal appeared twice a month from the first, but in 1949 it was converted to a weekly publication. In 1932 it changed its name to the *South African Medical Journal*, *Suid-Afrikaanse Tydskrif vir Geneeskunde* under which title it still appears. This is the journal the reader is perusing, and its history will on this occasion be taken no further.

It remains to be mentioned that this *Journal* is not alone as a medical publication in South Africa. Besides the Association's quarterly medical journal it is accompanied by the *South African Journal of Medical Sciences* (Johannesburg, 1935) and 3 privately owned journals, *Medical Proceedings* (Johannesburg, 1955) and the *Journal of Forensic Medicine* (Johannesburg, 1953), and the *South African Practitioner* (Johannesburg, 1955), as well as transactions such as the *Memoirs* and *Publications* of the South African Institute for Medical Research (Johannesburg, 1913) and the *Proceedings* of the Transvaal Mine Medical Officers (Johannesburg, 1921).

1. Editorial (1903): S. Afr. Med. Rec., **1**, 8.
2. Editorial (1926): Med. J. S. Afr., **22**, 137.

Die *Transvaal Medical Journal* was gepubliseer deur sekere lede van die Transvaal Medical Society wat 'n nie-winsgewende maatskappy gestig het. Die eerste redakteur was dr. E. T. E. Hamilton wat 12 jaar lank aan die hoof gestaan het.[2] Hy is opgevolg, vir 'n tydperk van 2 jaar, deur dr. H. Watkins, en in 1919 het dr. G. D. Maynard die redaksie waargeneem. Laasgenoemde was 4 jaar lank redakteur, en toe het dr. C. Louis Leipoldt vir die volgende 3 jaar die redaksie waargeneem, d.w.s. totdat die blad oorgeneem is deur die Mediese Vereniging van Suid-Afrika. In 1913 is die naam verander van *Transvaal Medical Journal* tot die *Medical Journal of South Africa*, soos dit tot die einde bekend was. Toe die blad eers gepubliseer is, was dit beskryf as 'published under auspices of the Transvaal Medical Society'. In 1912 is dit verander na ‚the Witwatersrand Division of the Transvaal Branch of the British Medical Association' en in 1913 (toe die tydskrif ook herdoop is) na die Witwatersrand Branch of the British Medical Association'. Hierdie benaming is egter oorboord gegooi in en na November 1919, toe die tydskrif, waarskynlik na aanleiding van die strydvraag wat destyds gewoeker het oor die beleid van by die B.M.A. bly, óf afstig in 'n eie Suid-Afrikaanse mediese vereniging, met die volgende verklaring voor die dag gekom het: ‚The shareholders of the Journal must dictate its policy.' Hierdie tydskrif was in 1926 nog lewenskragtig en aktief, en toe is dit vrywillig besluit om saam te smelt in die één tydskrif van die pasgestigte Medical Association of South Africa (B.M.A.).[2] Sy maandelikse omvang was gewoonlik 24 of 28 bladsye.

Die nuwe *Journal of the Medical Association, of South Africa* (*B.M.A.*), waarby die *South African Medical Record* en die *Medical Journal of South Africa* ingelyf was, is in 1927 begin. Dr. Leipoldt, die redakteur van die laasgenoemde tydskrif, is as redakteur van die nuwe tydskrif, sowel as sekretaris van die hersaamgestelde Mediese Vereniging aangestel, en aan die bejaarde dr. Darley Hartley van die *Medical Record*, is die titel emeritus redakteur toegeken. Die tydskrif het eers tweekeer per maand verskyn, maar in 1949 is dit in 'n weekblad omgeskep. Reeds in 1932 het dit die nuwe naam *Suid-Afrikaanse Tydskrif vir Geneeskunde* (*South African Medical Journal*) gekry, en so is dit vandag nog bekend. Dit is die *Tydskrif* wat die leser nou deurlees, en by hierdie geleentheid sal sy geskiedenis nie verder vertel word nie.

Ook moet dit gemeld word dat hierdie *Tydskrif* nie enig is as mediese publikasie in Suid-Afrika nie. Benewens die Vereniging se kwartaalblad, is daar nog die *South African Journal of Medical Sciences* (1935, Johannesburg), en 3 privaat-tydskrifte, die *Journal of Forensic Medicine* (1953, Johannesburg), *Medical Proceedings* (1955, Johannesburg), en die *South African Practitioner* (1955, Johannesburg). Dan is daar nog verhandelinge soos die *Memoirs* en *Publications* van die Suid-Afrikaanse Instituut vir Mediese Navorsing (1913, Johannesburg), en die *Proceedings* van die *Transvaal Mine Medical Officers* (1921, Johannesburg).

1. Van die Redaksie (1903): S. Afr. Med. Rec., **1**, 8.
2. Van die Redaksie (1926): Med. J. S. Afr., **22**, 137.

THE INCIDENCE OF BREAST FEEDING ON DISCHARGE FROM HOSPITAL OF EUROPEAN, COLOURED, BANTU AND INDIAN INFANTS *

EVA J. SALBER, M.D., D.P.H.

C.S.I.R. Bursar, Department of Medicine, University of Cape Town, (formerly of Institute of Family and Community Health, Durban)

This paper is a report on the incidence of breast feeding on discharge from hospital of European, Coloured, Bantu and Indian infants. It also reports on the time when milk first came into the breasts of Bantu and Indian mothers.

MATERIAL USED AND METHOD OF ANALYSIS

1. *Incidence of Breast Feeding*

This study commenced on 1 May 1951, and records were collected for a year thereafter till 30 April 1952. The data were obtained from Addington Hospital, Durban, for the European and Coloured births, and from McCord Zulu Hospital, Durban, for Bantu and Indian births. Since Addington Hospital is a provincial hospital, additional data for Europeans were collected from a private nursing home—Mothers' Hospital, Durban, which caters mainly for mothers of the middle-income group. It was considered that the European sample was then representative of the European population of Durban, with the exception of the wealthiest section.

At the end of the year there were complete records for 1,480 Europeans, 326 Coloured, 1,482 Bantu, and 197 Indians.

Premature babies and multiple births were excluded from this study, as were children with abnormalities such as cleft palate or other conditions which would make a normal breast-feeding situation difficult. Babies whose mothers died were also excluded.

Methods of feeding on discharge from hospital fell into 3 groups: (1) Breast only, (2) breast and bottle, (3) bottle only. The percentage of babies in each of these 3 feeding groups was calculated for the 4 racial groups.

2. *Time when Milk first came into the Breasts*

The examination of mothers for this study was undertaken by a nursing sister at McCord Zulu Hospital, who examined the breasts of the mothers at 8 a.m., 2 p.m. and 8 p.m. each day (I did a sample check to confirm her results). Since the important point here was the comparison between Bantu and Indian mothers, the same sister examined both groups. Being from England she had no preconceived ideas about lactation in these two groups. This study started in February 1951 and unfortunately terminated in June 1951 when the sister returned to England.

Information was then available on 103 Bantu and 61 Indian mothers. The time at which the milk first came into the breasts was calculated from the time of birth. Frequency distributions were drawn up, and means and standard deviations calculated for the two racial groups. Where differences were found, the significance of these differences was calculated.

* This report forms part of the material of an M.D. thesis (University of Cape Town).

TABLE I. FREQUENCY DISTRIBUTION OF AGES OF BABIES ON DISCHARGE FROM HOSPITAL

Days	*European*			*Bantu*	*Coloured*	*Indian*
	Addington Hospital	*Mothers' Hospital*	*Total*	*McCord's Hospital*	*Addington Hospital*	*McCord's Hospital*
1—2	5	3	8	1	—	5
3—4	15	2	17	12	7	18
5—6	79	18	97	201	24	66
7—8	349	139	488	654	216	73
9—10	463	301	764	480	62	39
11—12	44	56	100	108	19	12
13—14	16	15	31	38	6	7
15—16	10	8	18	16	10	5
17—18	6	2	8	8	4	2
19—20	4	—	4	4	1	1
21—22	3	1	4	2	—	1
23—24	2	1	3	—	—	—
25—26	—	—	—	2	1	—
27—28	—	—	—	1	—	—
29—30	—	—	—	—	—	—
31—32	1	—	1	—	—	—
33—34	1	—	1	—	—	—
	998	546	1,544	1,527	350	229
Mean (days)	8·8	9·3	8·9	8·5	8·4	7·6
S.D.	2·54	2·05	2·39	2·35	2·34	3·09

TABLE II. METHOD OF FEEDING OF NEWBORN INFANTS ON DISCHARGE FROM HOSPITAL (MOTHERS STAYING 5-15 DAYS)

1 May 1951 to 30 April 1952

	Europeans						*Coloured*		*Bantu*		*Indian*	
	Mothers Hosp.		*Addington*		*Combined*		*Addington*		*McCord's*		*McCord's*	
	No.	*%*	*No.*	*%*	*No.*	*%*	*No.*	*%*	*No.*	*%*	*No.*	*%*
Breast	473	89·1	909	95·8	1,382	93·4	319	97·9	1,462	98·6	140	71·1
Breast plus Bottle	24	4·5	18	1·9	42	2·8	6	1·8	19	1·3	53	26·9
Bottle	34	6·4	22	2·3	56	3·8	1	·3	1	·1	4	2·0
Total	531		949		1,480		326		1,482		197	

RESULTS

1. *Incidence of Breast Feeding on Discharge from Hospital*

(*a*) *Age of baby on discharge from hospital.* Table I shows the frequency distribution of the ages of the babies on discharge from hospital. The range varies from 1 to 34 days, long delays usually being due to illness of the mother or baby, while in early discharges the mother either signed off against hospital advice, or went home to be visited by the district nursing service. The investigation was therefore confined to those babies who were in hospital from 5-14 days. On the whole, European mothers stayed in hospital about 9 days, and non-European mothers about half a day less, with Indian mothers staying the shortest time (7½ days).

(*b*) *Incidence of breast feeding.* Table II shows the number and percentage of babies on the breast, on breast plus bottle, and on bottle only, for all the mothers (i.e. primiparae and multiparae together) of the 4 racial groups. Several extremely interesting facts emerged. Of the Bantu mothers 98·6% breast-fed their babies completely—very few had to supplement, and only one baby out of 1,482 was bottle-fed. In this case the hospital records stated that the mother was infectious, and the the baby was fed on the expressed breast milk of other mothers. The Coloured mothers were almost as successful, 97·9% of their babies being completely breast-fed, with a correspondingly small percentage partly or fully bottle-fed.

A surprisingly high percentage of European babies were found to be wholly breast-fed (93·4%). An interesting feature here is that more babies were on the bottle only than on breast plus bottle, indicating probably a definite decision on the part of the mother not to breast-feed. The nursing staffs of both the Addington and the Mothers' Hospital were strongly in favour of breast feeding, but at the latter the majority of mothers had their own doctor, whereas at the former they were attended by the hospital staff. At the Mothers' Hospital, the decision to breast-feed was made by the mothers, the nurses and the doctors, whereas at the Addington Hospital there was a definite ward policy. The effect of this can be seen in the high breast-feeding figures (95·8%) at the Addington Hospital as against 89·1% at the Mothers' Hospital.

Health visitors in Birmingham reported that 'doctors are still responsible for weaning babies more than any other single factor. They still take babies off the breast, whenever there is any difficulty, rather than take the trouble to go into the whole difficult question of successful breast feeding' (Neale *et al.*, 1943).

The lowest figures of all were found in the Indian group,

TABLE III. EFFECT OF PARITY ON BREAST FEEDING

(*a*) Primiparae

	Europeans						*Coloured*		*Bantu*		*Indian*	
	Mothers Hosp.		*Addington*		*Combined*		*Addington*		*McCord's*		*McCord's*	
	No.	*%*	*No.*	*%*	*No.*	*%*	*No.*	*%*	*No.*	*%*	*No.*	*%*
Breast	187	83·9	239	95·6	426	90·0	100	98·0	436	98·0	38	70·4
Breast plus Bottle	13	5·8	2	·8	15	3·2	2	2·0	8	1·8	15	27·8
Bottle	23	10·3	9	3·6	32	6·8	—	—	1	·2	1	1·8
Total	223		250		473		102		445		54	

(*b*) Multiparae

	Europeans						*Coloured*		*Bantu*		*Indian*	
	Mothers Hosp.		*Addington*		*Combined*		*Addington*		*McCord's*		*McCord's*	
	No.	*%*	*No.*	*%*	*No.*	*%*	*No.*	*%*	*No.*	*%*	*No.*	*%*
Breast	286	92·8	670	95·8	956	94·9	219	97·8	1,026	98·9	102	71·3
Breast plus Bottle	11	3·6	16	2·3	27	2·7	4	1·8	11	1·1	38	26·6
Bottle	11	3·6	13	1·9	24	2·4	1	·4	—		3	2·1
Total	308		699		1,007		224		1,037		143	

where only 71·1% of the babies were completely breast-fed. A very small number (2%) were bottle-fed, but over a quarter of the total group required supplementary feeding. It seems clear that these mothers did not wish to put their babies on the bottle, but had some difficulty with the full establishment of lactation.

(c) *Effect of parity.* In order to investigate the effect of parity on breast feeding, the mothers were divided into primiparae and multiparae (see Tables III*a* and III*b*. In all cases except the Coloured group (where the difference was 0·2%) multiparae were more successful breast-feeders than primiparae. The greatest difference was seen in the European group from Mothers' Hospital, where there was an increase of almost 9% in favour of the multiparae. Although this result was not unexpected, it was thought that the marital status of the mothers might be an additional factor influencing the incidence of breast feeding in the European group. The records revealed that most of the illegitimate European babies were destined for adoption, and therefore likely to be bottle-fed from birth. In an investigation (to be published) on the incidence of illegitimacy for the 4 racial groups in Durban the results were: Europeans 1·6%, Coloured 30·1%, Bantu 52·6%, Moslem Indian 0·7% and Hindu Indian 1·8%. Since the incidence of illegitimacy in the European group at these two hospitals was 2·6%, it appeared that they catered for a large number of the unmarried mothers in Durban, and in fact this was the case. The incidence of breastfeeding for European legitimate babies is shown in Table IV.

TABLE IV. METHOD OF FEEDING OF NEWBORN INFANTS ON DISCHARGE FROM HOSPITAL

European Legitimate Births only, showing Ranks separately

	Primiparae						*Multiparae*						*All Ranks*					
	Mothers'		*Addington*		*Combined*		*Mothers'*		*Addington*		*Combined*		*Mothers'*		*Addington*		*Combined*	
	No.	%	*No.*	%	*No.*	%	*No.*	%	*No.*	%	*No.*	%	*No.*	%	*No.*	%	*No.*	%
Breast	185	90·2	232	98·3	417	94·6	286	93·1	669	96·5	955	95·5	471	92·0	901	97·0	1,372	95·2
Breast plus bottle	11	5·4	2	·85	13	2·9	11	3·6	16	2·3	27	2·7	22	4·3	18	1·9	40	2·8
Bottle	9	4·4	2	·85	11	2·5	10	3·3	8	1·2	18	1·8	19	3·7	10	1·1	29	2·0
Total	205		236		441		307		693		1,000		512		929		1,441	

(d) *Effect of illegitimacy.* The difference is most marked in primiparae, as one would expect, as most illegitimate births are first babies. It will be seen that when legitimate births only are considered, the 9% difference in incidence of breast feeding between primiparae and multiparae of the Mothers' Hospital becomes only 3%, and that there is an increase of over 6% in the percentage of first babies completely breast-fed. There is also a corresponding decrease of babies completely bottle-fed. The trend is the same for the Addington Hospital, although not so marked. Since there is a high incidence of illegitimacy among the Bantu and Coloured communities, and yet an almost one-hundred-percent breast-feeding picture, it is obvious that the marital status of the mothers does not affect the results in these groups. There were no records of any illegitimate Indian births in this group, except for one case which was discarded owing to incomplete data on feeding. The comparatively low incidence of breast feeding in this Indian group then, is not related to the marital status of the mothers.

(e) *Effect of age of mother and rank of baby on feeding.* The effects of age of mother and rank of baby on feeding, were analysed in the European and Indian groups only, since so few Bantu and Coloured babies were not breast-fed. Table V shows the percentage of babies breast-fed according to these two factors. The babies were divided into first-born (rank 1), 2nd to 4th-born (ranks 2-4), and 5th and later-born babies (ranks 5+), and the mothers into 3 age groups: up to 19 years, 20-29 years, and over 30 years. Only legitimate births were considered. In the European group having their first babies the youngest mothers were the most successful breast-feeders. For both ranks 2-4 and ranks 5+ the optimal lactation age appeared to be 20-29 years. The most successful single group was that of mothers of 20-29 years having babies of ranks 5+. Here 100% breast-feeding was recorded. In the Indian group the same results were found, except that in ranks 5+, mothers of 30+ years were more successful. The most successful Indian group was that of the youngest mothers having their first babies and, even here, only 74% were recorded as wholly breast-feeding. It is interesting to note that by the time an Indian mother is 30+ years she is almost invariably having her 5th or higher ranking baby, whereas the majority of babies born to European mothers of this

TABLE V. PERCENTAGE OF BABIES BREAST-FED ACCORDING TO RANK AND AGE OF MOTHER

Legitimate Births only

Age of Mother	*Rank 1*		*Ranks 2-4*		*Ranks 5+*	
	No. in Group	*% Breast fed*	*No. in Group*	*% Breast fed*	*No. in group*	*% Breast fed*
Europeans						
19	96	99·0	16	87·5	1	—
20—29	294	94·6	541	98·0	55	100·0
30+	50	86·0	270	91·1	105	92·4
Indians						
19	19	73·7	10	50·0	1	—
20—29	32	68·8	75	73·3	29	69·0
30+	3	—	4	—	22	72·7

TABLE VI. TIME AT WHICH MILK CAME INTO BREASTS

	Rank 1			*Ranks 2+*			*Combined*		
	No.	*Mean*	*S.D. (hrs.)*	*No.*	*Mean*	*S.D. (hrs.)*	*No.*	*Mean*	*S.D. (hrs.)*
Bantu ..	39	47·5 hrs.	17·3	64	45·7 hrs.	16·0	103	46·3 hrs.	16·6
Indian ..	26	55·4 hrs.	16·3	35	48·3 hrs.	15·5	61	51·3 hrs.	16·2

age are 2nd-4th babies. The most unsuccessful breast-feeding groups were the elderly European primiparae and the very young Indian mothers having their 2nd-4th babies.

2. *Time at which Milk first came into the Breasts*

Fig. 1 depicts the frequency distribution of time after birth at which milk came into the breasts, and Table VI shows the mean time in hours between birth and the appearance of milk, for Bantu and Indian mothers, primiparae and multiparae, separately and combined. It will be seen that for both groups the milk appeared earlier in the multiparae than the primiparae. The difference was most striking in the Indian mothers, being 7 hours earlier, as against only 2 hours earlier in the Bantu mothers. Milk was found to come in earlier in the Bantu than the Indian group for both primiparae and multiparae, 8 hours sooner in the primiparae and about 2½ hours earlier in the multiparae. These differences were not statistically significant, but the trend was consistent and it is possible that if the experiment had continued longer, with a larger number of cases, a significant difference might have been found.

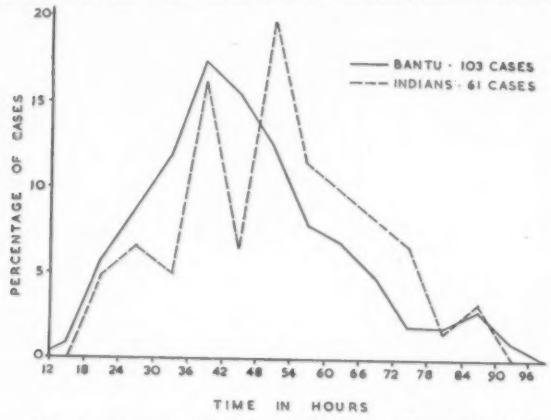


Fig. 1. Chart showing frequency distribution of time after birth at which milk came into the breasts.

DISCUSSION

Incidence of Breast Feeding

There are several features of interest in the incidence of breast feeding in these 4 racial groups. In the first place, the incidence of 93·4% among Europeans is very high in comparison with the findings in America and Britain. This can be seen very clearly when comparing results with those of 13 other recent surveys (Table VII). This report finds also, as did the Ministry of Health Report (1944), that illegitimacy amongst Europeans militates against breast feeding. A further factor to be considered

TABLE VII. INCIDENCE OF BREAST FEEDING IN PREVIOUS SURVEYS COMPARED WITH PRESENT SURVEY

Author	*Place and Date of Survey*	*No. of Cases*	*Results*
Gordon, 1942	Ilford 1920-24	1,168	87% breast-fed at health visitors' first visit (2-3 weeks after birth).
	1930	1,772	87% breast-fed as above.
	1938	1,093	73% breast-fed as above.
McNeil, 1942	Edinburgh Children's Hosp.	100	62% weaned by the end of the first month.
Ministry of Health Report, 1944 ..	E. and W. 1931—41	?	80% breast-fed on discharge from hospital. 95% breast-fed when midwife leaves (if delivered at home).
Bain, 1948	2513 hosp. USA 1946.	39,171	38% breast-fed completely on discharge from hospital.
Hughes, 1948	Newbiggin 1941-45.	548	29% weaned by 2 weeks.
Maternity in Great Britian, (1948)* ..	Gt. Britain 1946.	13,687	78·3% breast-fed completely at 2 weeks. 55·1% breast-fed at 8 weeks.
Newton and Newton, 1950	Hosp. Univ. Pennsylvania.	91	55% successful breast-feeders during hospital stay.
Ross and Herdan, 1951	Bristol 1947-48	1,047	81·5% completely breast-fed at 2 weeks.
Lussky, 1951	Evanston Hosp. Illinois.	1,754	37·2% completely breast-fed on discharge from hospital.
Miller, 1952	Simpson Memorial Maternity Pavilion, Edinburgh 1948-49	2,024	77% breast-fed on discharge from hospital.
Stocks and Stang, 1953	Health Division No. 14, Lancashire County Council 1950.	650	62% breast-fed at 2 weeks.
Curtin, 1954	Cork 1952-53.	1,007	46·6% breast-fed at 2 weeks.
Hytten, 1954	Aberdeen Maternity Hosp. 1951-1953.	6,456	84·5% fully breast-fed on discharge from hospital.
Present Investigation (Europeans), 1955	Durban 1951-52.	1,480	93·4% breast-fed on discharge from hospital

* Survey, granted by Douglas (1950).

is the attitude to breast feeding on the part of the people responsible for the delivery. The sister in charge of the maternity ward at the Addington Hospital was determined that the babies should be breast-fed, and she achieved very good results, The nursing staff at Mothers' Hospital could not be so dogmatic, since many of the mothers had private doctors, and the incidence of breast feeding is lower there. The fact, however, that 93% of European babies are completely breast-fed on discharge from hospital does not mean that breast-feeding is continued for long afterwards. There is a very rapid falling-off in breast feeding, as can be seen when the mothers return with their babies to baby clinics. Since artificial feeding has become safe and easy there has been a swing against universal breast-feeding by European mothers, but in South Africa it is quite definitely the custom of the non-European groups to breast-feed their babies, the general pattern being a self-demand regime. Barrow (1952) in an analysis of the feeding of 1,565 infants (mainly Coloured patients) at St. Monica's Home, Cape Town, found 96·5% to be fully breast-fed on discharge from hospital. I expected to find an almost one-hundred-percent breast-feeding picture in the non-European groups, and was surprised at the comparatively low incidence (71%) in the Indian mothers.

From our experience at the Institute of Family and Community Health, Durban, which deals with all races, and at the Springfield Health Centre, which is predominantly an Indian health centre, Indian mothers continue to breast-feed their babies for a long time, 18 months-2 years being quite common. There is certainly no desire to put their babies on the bottle and, in fact, very few are on the bottle (2%). A large percentage, however, (27%) are supplemented by bottle feeding in addition to the breast when delivered in hospital.

Mention has been made of the influence exerted by the medical and nursing staff of a hospital. Indian babies are small—average weight at birth 6·46 lb. (Salber and Bradshaw 1951), and it is possible that their smallness influenced the sister of the ward to supplement their feeds. If the babies continued losing weight for 4 days they were test-weighed on the 5th day, and if this result was unsatisfactory the feeds were supplemented. However, the sister was not likely to advise supplements on discharge from hospital if she did not consider it essential, since she was fully aware of the poverty of the people.

With these facts in mind, 1 year's records of the Health Centre midwife at Springfield (about 1/4th of the total births in the area) were examined. This sister was a determined advocate of breast feeding, and 95% of the babies were fully breast-fed on the 9th day. However, an examination of 1 year's records of babies attending the mother-and-baby sessions at the Springfield Health Centre showed 87% totally breast-fed at 0-2 weeks, 86·6% at 2-4 weeks and 72·6% at 4-8 weeks. The truth probably lies somewhere between the hospital and the Health Centre figure, but the indication is that Indian mothers are not so successful in breast-feeding as the Coloured and Bantu mothers.

One possible factor which militates against breast feeding in hospital for Indian mothers is the complete lack of privacy. African mothers breast-feed their babies in the streets with no self-consciousness; Indian mothers, on the other hand are extremely shy, and conceal their breasts and the baby during feeding. As visiting hours at McCord's Hospital are very free and easy, and as Africans and Indians occupy the same wards, the breast-feeding situation must often be embarrassing for the Indian mothers. Newton and Newton (1950) consider that, amongst other causes, embarrassment inhibits the let-down reflex, and therefore should be avoided in the feeding situation.

The Effect of Parity and Age of Mother

The *Maternity in Great Britian* report found that age of mother or parity were of little importance as factors affecting the success of lactation. Norval (1947), though she did not consider parity to influence the supply of breast milk, stated that there was a decrease in the adequacy of the breast-milk supply after the age of 30, particularly in women having their first child. Miller (1952) agreed with Norval, and Lussky (1951) also found that while parity was not important, breast-feeding decreased with increasing age of mother. Hughes (1948) and Dummer (1949) found incidence of breast-feeding to be higher among primiparae but Neale *et al.* found a lower incidence among first-born up till 2 months of age. Waller (1950) found that younger women produced more milk than older women, and that multiparae produced more than primiparae. Dean (1951) found a fall in milk yield with increasing age of mother in the 1st week, and Hytten (1954) found a highly significant negative correlation between age of mother and success of breast feeding in hospital. Age for age, multiparae were more successful than primiparae. In this investigation multiparae were more successful breast-feeders than primiparae, and European elderly primiparae were not so good lactators as young primiparae. On the other hand, in the Indian group the most unseccessful breast-feeders were mothers under 20 years having their 2nd and 4th babies. This last finding points directly to the importance of adequate nutrition in the establishment of lactation.

The Effect of Nutrition

There is abundant evidence in the literature that markedly inadequate calories in the food, and particularly deficiency in protein, will reduce the yield of milk—Adair (1925), Ebbs and Kelley (1942), Debré (1945), Williams (1945), Stuart (1947), Antonov (1947), Platt and Moncrieff (1947), and Kon and Mawson (1950). Dean says that undernutrition and anxiety usually occur together and that it is difficult to say which is the more important in lactation failure. Our experience at the Institute of Family and Community Health has shown that the diets of the pregnant Indian mothers are markedly deficient in both calories and protein, and that their nutritional state is the worst of the 4 racial groups. Added to that is their high fertility-rate and close birth-spacing, so that, as previously mentioned, mothers of 30 years and over are almost invariably having their 5th and later babies. In addition, Indian custom is to eat very little for the first few days following delivery and to increase food intake from the 3rd day. Further,

the food provided by the hospital is predominantly a Bantu-type diet, which the Indian mothers do not like.

It is doubtful if the Indian mothers at McCord's Hospital can be regarded as representative of the Indian community in Durban, for it is not the general custom among Indians to have their babies in hospital. Although this is slowly changing, on the whole it is probably the better-off section of the population who are delivered in hospital. Their nutritional state would presumably be better than that of the mothers who have their babies at home. The fact that a greater percentage of babies delivered at home are wholly breast-fed may mean that the home environment is more conducive to breast feeding, but it may also mean that the babies are inadequately fed.

The incidence of breast-feeding in a community cannot be taken as a complete measure of the capacity to lactate. Much depends on the attitude of the mothers, doctors, nurses and relatives concerned in the delivery at hospital or at home, and the availabiltiy of artificial foods and the money to buy them, quite apart from the production of milk in the mother's breasts.

We have not found any literature on whether inadequate nutrition has any effect on the time when milk first comes into the breasts, but is is interesting to note that the Bantu mother lactates earlier than the Indian mother.

Quantitative and qualitative studies of breast-milk production in the 4 racial groups, both in hospital and at home, would provide some of the answers to our questions, if made in conjunction with growth analysis and detailed studies of community attitudes to breast feeding.

SUMMARY

The incidence of breast-feeding on discharge from hospital was analysed in 1,480 European, 326 Coloured, 1,482 Bantu, and 197 Indian mothers delivered in Durban from 1 May 1951 to 30 April 1952. The time when milk first came into mothers' breasts was studied in 103 Bantu and 61 Indian mothers from February to June 1951.

1. The mean length of stay in hospital varied from $7\frac{1}{2}$ to 9 days.

2. Only those cases being used where the babies stayed 5-14 days, the incidence of breast feeding on discharge was found to be: Bantu 98·6%, Coloured 97·9%, European 93·4% and Indian 71·1%.

3. There were more European babies bottle-fed than partially breast-fed, but the Indian group had a small percentage on the bottle only, and a large group receiving supplementary feeds.

4. With the exception of Coloured mothers, where the difference was 0·2%, multiparae were more successful breast-feeders than primiparae.

5. When illegitimate babies were excluded, the percentage of European babies who were breast-fed rose to 95·2%. Illegitimacy did not appear to affect the feeding in the non-European groups.

6. Multiparae were more successful breast-feeders than primiparae. Increasing age in European mothers was inversely related to successful lactation, the most unsuccessful group being the elderly primiparae. Very young Indian mothers having first babies were the most successful group in that community, but this same age-group showed the worst results if they were having their 2nd-4th babies.

7. It is considered that the poor nutritional state of the Indian mothers, due largely to a very inadequate intake of calories and proteins, plus a high fertility rate resulting in big families with closely-spaced births, was probably responsible for their difficulty in the establishment of lactation.

8. Milk came into the breasts sooner in Bantu than in Indian mothers, and in both groups earlier in multiparae than primiparae.

9. It is doubtful whether the incidence of babies who are wholly breast-fed can be taken as a complete measure of capacity to lactate. Quantitative and qualitative studies of breast-milk production, together with analysis of growth and investigation of community attitudes to breast feeding, would provide valuable information.

10. The literature is discussed.

My thanks are due to the Superintendents and staffs of the Addington Hospital, Mothers' Hospital and McCord Zulu Hospital, Durban, for their cooperation in the keeping of records and access to the wards, and to the staff of the Hollerith Office, Durban, for machine tabulation of the records.

Special thanks are due to my former statistical assistant, Mrs. E. S. Bradshaw, for help with statistical analysis, and to Miss Robin Tanner of Guy's Hospital, London, who helped me in the investigation of the time of first appearance of milk in Bantu and Indian mothers, while working at McCord's Hospital.

REFERENCES

Adair, F. L. (1925): Amer. J. Obstet. Gynec., **9,** 1.
Antonov, A. N. (1947): J. Pediat., **30,** 250.
Bain, K. (1948): Pediatrics, **2,** 313.
Barrow, E. (1952): S. Afr. Med. J., **26,** 329.
Curtin, M. (1954): Irish J. Med. Sci., 6th Ser., No. 346, 447.
Dean, R. F. A. (1951): Spec. Rep. Ser., Med. Res. Coun., No. 275. London: H. M. Stationary Office.
Debré, R. (1945): Brit. Med. J., **1,** 341.
Douglas, J. W. B. (1950): J. Obstet. Gynaec. Brit. Emp., **57,** 336.
Dummer, F. H. M. (1949): Brit. Med. J., **2,** 14.
Ebbs, J. H. and Kelley, H. (1942): Arch. Dis. Childh., **17,** 212.
Gordon, I. (1942): *Ibid.*, **17,** 139.
Hughes, E. L. (1948): Brit. Med. J., **2,** 597.
Hytten, F. E. (1954): *Ibid.*, **2,** 1447.
Kon. S. K. and Mawson, E. H. (1950): Spec. Rep. Ser. Med. Res. Counc. No. 269. London: H. M. Stationery Office.
Lussky, H. O. (1951): Quart. Bull. Northw. Univ. Med. Sch., **25,** 251.
McNeil, C. (1942): Brit. Med. J., **2,** 271.
Miller, R. A. (1952): Arch. Dis. Childh. **27,** 187.
Ministry of Health (1944): Rep. Publ. Hlth. Med. Subj., No. 91. London: H.M. Stationery Office.
Neale, A. V., Cassie, E., Braid, F. and Pierce, M. (1943): Arch. Dis. Childh. **18,** 59.
Newton, N. R. and Newton, M. (1950): Pediatrics, **5,** 726.
Idem. (1950): *Ibid.*, **5,** 869.
Norval, M. S. (1947): J. Pediat., **31,** 415.
Platt, B. S. and Moncrieff, A. (1947): Brit. Med. Bull., **5,** 1109.
Ross, A. I. and Herdan, G. (1951): Lancet, **1,** 630.
Roy. Coll. Obstet. Gynaec. and Pop. Invest. Comm. (1948): *Maternity in Great Britain.* London: Oxford Univ. Press.
Salber, E. J. and Bradshaw, E. S. (1951): Brit. J. Soc. Med., **5,** 113.
Stocks, A. V. and Stang, F. (1953): Med. Offr., **89,** 111.
Stuart, H. C. (1947): New Engl. J. Med., **236,** 507.
Waller, H. (1950): Lancet, **1,** 53.
Williams, P. F. (1945): J. Amer. Med. Assoc., **127,** 1052.

A NEUROLOGICAL SYNDROME IN CHILDREN RECOVERING FROM MALNUTRITION*

E. KAHN, M.D., M.R.C.P.E., D.C.H.

Baragwanath Hospital, Johannesburg

This article discusses some of the features of a neurological syndrome which has been observed in Johannesburg in 16 children recovering from malnutrition (kwashiorkor).

Since publication of my first account of this condition[1] I have received communications from other centres indicating that this disorder is not merely of local interest. Thus one case has been noticed recently in Durban,[2] others in Central Africa,[3, 4] and Gerbasi has described the same disorder in malnourished, anaemic children in Sicily.[5] The syndrome is not mentioned in contemporary medical literature, but there is evidence that similar, if not identical, cases were seen in the USA, France, Italy and Austria when malnutrition in infants was still common there some 50 years ago. In 1909, 18 cases were published by Zappert[6] under the title 'Acute cerebral tremors'. He attributed them to toxic-infective causes.

Symptoms and Signs

The syndrome is characterized by coarse tremors, which affect most frequently the upper extremities and somewhat less commonly the legs, the muscles of the face, the tongue, the neck and the abdomen. The tremors may occur unilaterally or bilaterally or they may affect both sides of the body with different intensity. They cease only during deep sleep. Cog-wheel rigidity may be associated with the tremors.

Postural abnormalities can usually be detected in the upper extremities of these children. The arms are abducted at the shoulders and flexed at the elbows. The hands are held in ulnar deviation, the fingers are flexed at the metacarpo-phalangeal joints and extended at the interphalangeal joints, and the thumb is flexed into the palm.

Tremors of the tongue are associated with drooping of the lower jaw, but excessive salivation has not been observed.

The tendon reflexes are nearly always markedly exaggerated. A few cases have shown myoclonic jerks at a rate of 1 per second. Other inconstant features of the syndrome are muscular weakness, insomnia, epistho-tonus and irritability. There is no clouding of consciousness.

Prognosis

Recovery from the syndrome has been complete within weeks or months of onset, except in one child who died of intercurrent gastro-enteritis and in another who, nearly 3 years after cessation of tremors, was found to have markedly exaggerated tendon reflexes and who also suffered from mild mental retardation and grand-mal epilepsy.

The Cause of the Syndrome

None of the numerous investigations carried out on these children has yielded a clue to the pathogenesis of the neurological disorder.

Similar disturbances have been noticed in adult pellagrins[7] in whom a favourable therapeutic response was obtained with injections of pyridoxin hydrochloride. This vitamin was used in some of our cases with equivocal results.

It is also doubtful whether the syndrome is related to the portal-systemic encephalopathy of liver failure, which has aroused interest in recent years.[8] The two conditions seem to differ in that our cases have not shown any clouding of consciousness or a favourable response to a low-protein diet. Furthermore, histological examinations of the livers of our patients have revealed only mild fatty changes, and biochemical tests have indicated varying degrees of impaired hepatic function, findings which are almost the rule in children recovering from malnutrition.

At this stage, there is no explanation why the syndrome should occur in only about one of 300 severe cases of malnutrition in childhood.

* A paper presented at the South African Medical Congress, Pretoria, October 1955.

REFERENCES

1. Kahn, E. (1954): Arch. Dis. Childh., **29**, 256.
2. Walt, F. Personal communication.
3. Williams, C. D. *Ditto.*
4. Trowell, H. C. *Ditto.*
5. Gerbasi, M. (1950): Helv. paediat. Acta, **5**, 299.
6. Zappert, J. (1909): Mschr. Kinderheilk., **8**, 133.
7. Lewy, F. H., Spies, T. D., and Aring, C. D. (1940): Amer. J. Med. Sci., **199**, 840.
8. Sherlock, S., Summerskill, W. H. J., White, L. P. and Phear, E. A. (1954): Lancet, **2**, 453.

HALF-YEARLY MEETING OF THE SOUTH AFRICAN MEDICAL AND DENTAL COUNCIL

The South African Medical and Dental Council held its half-yearly meeting on 19-22 March 1956 at the Archives Office, Queen Victoria Street, Cape Town. The President, Prof. S. F. Oosthuizen, was in the chair and all 31 members attended, together with the Registrar, Mr. W. Impey and staff. The proceedings occupied 8 morning and afternoon sessions.

It was announced that Prof. L. J. te Groen's membership of the Council had ceased on his retirement from the University of Pretoria at the end of 1955 and that Prof. H. W. Snyman has been appointed by the University in his place. The University of Stellenbosch had appointed Dr. F. D. du T. van Zyl (additional member). The Council elected Dr. I. R. Vermooten as Treasurer in place of Prof. te Groen.

Expression was given to the high esteem in which the members

and staff held Dr. te Groen and the valuable services he had rendered; a luncheon had been given and a presentation made, and Dr. te Groen's letter of appreciation was entered in the minutes.

The *treasurer* presented the accounts for 1955. The excess of income over expenditure was £1,216, bringing the Council's accumulated funds to £21,488. The annual fees from all classes of registered persons amounted to £23,852 and registration fees to £8,120 (of which £5,415 was paid by medical practitioners, £510 by interns, £573 by medical students and £226 by specialists). The Council decided that the fee for registration of a speciality should be £15, instead of £2 2s. 0d. as hitherto. This would involve amendment of the second schedule to the Act.

REGISTRATION

The Registrar submitted the following particulars of registrations etc. during the year.

	Registrations	*Restorations*	*Erasures*	*On Register 31.12.55*
Medical Practitioners	363	42	141	6,987
Interns	255	—	314	446
Dentists	64	5	28	1,151
Medical Students	275	6	263	1,176
Dental Students ..	83	2	63	241
Auxiliaries ..	63	—	6	783
Specialists (medical)	110	3	26	1,242
Specialists (dental)	—	—	—	13

The specialists on the register at the end of 1955 were: medicine 175, surgery 155, obstetrics and gynaecology 111, anaesthetics 100, ophthalmology 99, radiology 70, radiology and electrotherapeutics 37, radiological diagnosis 23, radiotherapy 4, psychiatry 67, otorhinolaryngology 64, pathology 64, paediatrics 62, orthpaedics 52, urology 35, dermatology 30, neurology 27, venereology 16, physical medicine 16, thoracic surgery 16, neuro-surgery 13, plastic and maxillo-facial surgery 6. (Dental: orthodontia 8, maxillo-facial and oral surgery 5.)

Of the registered medical practitioners, 4,891 (68·3%) qualified in South Africa (Cape Town 2,169, Witwatersrand 2,107, Pretoria 615), 2,049 (28·6%) in Great Britian and Ireland, and 220 (3·1%) elsewhere.

Elderly Practitioners. At this meeting it was decided to exempt 13 medical and 3 dental practitioners from payment of the annual fee on account of age.

Medical Missionaries. The Council at the present meeting granted applications for the special registration as missionary doctors to 5 practitioners with non-reciprocity foreign qualifications, and extended the registration of one other for a further period of 5 years.

Visiting Doctors. It was reported that the Minister had been recommended to grant exemption from the obligation of registration to 5 doctors visiting South Africa, to enable them to give demonstrations.

Removal from Register. The following erasures were decided on: 2 medical practitioners for failure to report change of address, 9 medical practitioners, 5 dentists and 1 intern at their own request, and 71 medical practitioners and 12 dentists for failure to pay the annual fee. Two medical practitioners were restored to the register after removal in the past for reasons other than misconduct.

Internship: 7 exemptions from the obligation of internship were granted, and 9 condonations of sick leave during internship. One institution was recognized for the purpose of internship.

Specialists. At this meeting 35 applications for the registration of specialities were granted, 26 were approved conditionally, and 12 were refused. Further conditions were required of 32 applicants.

Medical Students: 2 graduates holding the degree of Doctor of Medicine and Surgery, Univ. Milan, and M. D. Frankfurt, respectively, were conditionally registered as 4th-year medical students.

The regulations for the degrees of M.B., Ch.B. of the University of Natal were conditionally approved.

Medical Auxiliaries. At this meeting 4 applicants were registered as physiotherapists, 1 as a masseuse, 1 as a masseur (conditionally), 4 as medical technologists, 1 as a radiographer, and 1 as an orthopaedic mechanician and surgical-appliance maker in certain branches.

Limited Reciprocity with Holland. The annual number of 12 having been decided on for admission to the South African medical register of Netherlands nationals in 1955 and in 1956, under the recently promulgated regulations on the subject, it was reported that 5 registrations had been effected under this provision. The Council decided that the number for 1957 should again be restricted to 12. In the course of discussion Dr. du P. le Roux, Secretary for Health, announced that no appointments had been made under the new regulations enabling the 'limited' registration of qualified persons from non-reciprocity countries accepting employment under the Union Government.

On consideration of a letter from the Italian Embassy suggesting the institution of reciprocity with Italy it was decided that it was advisable to study the implications of the recent institution of limited reciprocity with the Netherlands before extending it to other countries.

COMPLAINTS CONCERNING PRACTITIONERS

Disciplinary. The Executive Committee reported that 32 complaints against medical practitioners had been dealt with in which it had been decided to take no action. One case (concerning a dentist) has been disposed of after interview, without a formal enquiry. In another case (without an enquiry) a medical specialist was advised that his action in not confining his practice to his speciality was contrary to ethical rule and he was asked for an assurance that this would not continue.

An enquiry had been instituted into the conduct of a registered intern but as it had not been possible to serve the summons the enquiry was postponed *sine die*.

In the case of Dr. F.G., who had been convicted on charges of procuring abortion, the Executive Committee had held an enquiry and found the accused guilty, recommending that his name be erased from the register. The Council confirmed the finding and erasure.

In another case, in which Drs. M.G. and C.P.A. were reported as having been convicted of the crime of abortion (or aiding and abetting), it had been decided to hold an enquiry; this was still pending.

Restoration to Register. Two applications in person were received from medical practitioners whose names had been erased from the register in the past for misconduct. One was acceded to and the other refused.

Offences by Medical Students. The Council resolved to advise Universities that it is not necessary to report disciplinary cases concerning students unless the University regards the matter as so serious as to necessitate the expulsion of the student from the Faculty or his suspension for 6 months or more. This arose out of a case where a medical student was convicted of a crime but sentence was conditionally postponed for one year. In this case (provided he is not sentenced) the offence of which he was convicted will not be held against him when he applies for registration after qualifying.

Publicity at Enquiries. A person contemplating lodging a complaint of misconduct against a doctor enquired whether it was possible for the names of the complainant and witnesses to be withheld from publication. A legal opinion was obtained and the enquirer informed 'that the Council cannot curtail at an enquiry the resultant publicity save in so far as it is expressly authorized to do so. A disciplinary committee holding an enquiry can go into committee and protect its discussions, but the evidence, the addresses and other features of the hearing cannot be kept from the public'. The Council adopted this resolution.

Complaints re Fees.

In 5 cases (4 medical practitioners, 1 dentist) the reports of assessors under section 80 *bis* were received and noted.

In 2 other cases (medical practitioners) assessors were appointed.

In a case in which the name of a practitioner had been erased from the register for failure to pay the annual fee it was decided that it was competent for assessors to assess an account he had rendered.

VARIOUS MATTERS

Children's Act. In reply to an enquiry from the Secretary for Health the Council expressed itself in favour of an amendment of the Children's Act to protect medical and dental practitioners who perform *emergency* operations on minors where the consent of the parent or guardian cannot be obtained and the practitioner is of

opinion that the operation is necessary. The Council considers that wherever possible the practitioner should obtain a second opinion.

Postgraduate Training. The Council resolved that, in view of the provision now being made for the postgraduate training of medical practitioners by the medical schools, the purpose of bringing the matter forward has been achieved, and that the matter be discharged from the agenda.

Increased Representation of Medical Practitioners.

Arising out of the Council's decision at the previous meeting in favour of increasing the number of elected medical representatives on the Council by four, it was decided to recommend the Minister to amend the Act so as to make the maximum number of medical practitioners elected from any one province 5 (instead of 4) and the minimum number 2 (instead of 1).

Sterilization

At its meeting in September 1955 the Council had before it a recommendation from the Executive Committee that a circular letter should be sent out to all registered medical practitioners in reference to a resolution passed by the Council in March 1953 as follows: 'Resolved that a medical practitioner should not sterilize a man or woman except on purely medical grounds, and that it is essential to obtain a confirmatory second opinion before recommending or undertaking such action'. Consideration of the proposal was postponed by resolution and the item now came up at the present meeting. Several speakers objected to the 1953 resolution on the grounds that it might be regarded as wrongly implying that sterilization was an advisable procedure under circumstances in which it might not be advisable. On the motion of Dr. M. Shapiro, seconded by Dr. van Schalkwyk, the 1953 resolution (as above) was rescinded by a majority vote. The proposal to issue a circular thereupon fell away.

Chiropractors and Workmen's Compensation

The Workmen's Compensation Commissioner requested the Council's comments on a letter directed to the Minister of Labour by the South African Manipulative Practitioners' Association, in which they ask that 'chiropractic' should be recognized in the treatment of industrial and other injuries for the purpose of payment under the Workmen's Compensation Act. They indicated that 'chiropractic' had received extensive recognition in USA.

It was decided to inform the Workmen's Compensation Commissioner that the Council accepts the doctrine of scientific medicine, where all theories of the causation and treatment of disease are constantly subjected to critical analysis and research. The Council does not accept the concept on which chiropractors base diagnosis and treatment; their theories of the aetiology of disease are demonstrably false and at complete variance with the concept of scientific medicine. As the Council has a public duty to perform and has to advise the legislature on the best form of medical practice, it would regard any recognition of this group under the proposed legislation, or any other legislation, as a retrograde step.

To the general public, rightly or wrongly, statutory recognition of chiropractors will convey some kind of parliamentary guarantee of the validity of the principles underlying this sect. This applies not only to recognition under the Workmen's Compensation Act, but to recognition under any other Bill. The Council does not regard these persons as supplementary to the services of medical practitioners or of the groups of recognized auxiliaries. They supplant, or endeavour to supplant, them. From the point of view of logic a case cannot be made for their recognition under the Workmen's Compensation Act.

On consideration of an enquiry from the Medical Association of South Africa the Council reiterated its ruling, given in 1947, that it would be contrary to the rules of the Council for a medical practitioner to refer patients to persons engaged in an unorthodox practice of medicine.

DECISIONS OF COUNCIL

Lectures by Medical Practitoners. The Mental Health Society of the Witwatersrand asked whether medical men in private practice might give lectures on mental health to Ministers of Religion to guide them in dealing with the personal problems they meet in with their pastoral experience. It was decided to inform the Society that the practitioners concerned should obtain the consent of the Medical Association of South Africa, and should also make sure that they conform to the Council's ethical rules.

Who's Who, etc. Practitioners are entitled to furnish publications like 'Who's Who in S.A.', 'Volksfigure' and 'Afrikaner Personalia' with such general information concerning their careers as would be required for publication, provided it is not presented in such a manner as to cause the individual to contravene the Council's rules, more particularly those relating to advertising.

Public Use of Doctors' Waiting Room. In reply to an enquiry the Council stated that it was undesirable that access from the street to rooms used for non-medical purposes should be through a doctor's waiting room.

Narco-analysis in Consulting Rooms. The Council see no objection to the performance in the doctor's consulting room of narco-analysis by intravenous injection of Sodium Pentothal or Sodium Amytal.

Itinerant Practice. A surgeon wrote: 'Ek besoek periodies buite dorpe. Mag ek daar ook operasies doen en weggaan en 'n algemene praktisyn vra om na die pasiënte verder te kyk'. The Council replied that this type of practice is undesirable, and directed attention to rule 75 of the ethical rules.

Thoracic Surgery. A specialist in thoracic surgery may not practice general surgery.

General Practitioner Assistant. A specialist in venereal disease may not employ a general practitioner as his assistant.

Restriction of Practice by General Practitioner. A general practitioner may confine his practice to obstetrics and gynaecology provided he does not practice or hold himself out as a specialist.

Other proceedings at this meeting of the South African Medical and Dental Council are reported in this and last week's issue of the Journal at pages 345 *and* 327.

THE DOCTOR'S RIGHT TO DISPENSE HIS OWN PRESCRIPTIONS

At the meeting of the South African Medical and Dental Council held on 19-22 March discussion arose out of the pressure recently exercised by the Pharmaceutical Society and Pharmacy Board of South Africa to restrict the right of the medical practitoner under section 73 of the Medical, Dental and Pharmacy Act to compound or dispense medicines prescribed by himself or his partner, principal, assistant or *locum tenens*. An amendement of the Act to achieve this restriction had in fact been proposed.

The Pharmaceutical Society had approached the Minister by memorandum and interview, and on 1 September 1955 the Secretary for Health had sent the Council a copy of the Society's memorandum with a request for comment. Moreover, on representations by the Pharmacy Board the Minister has directed a meeting to be called of representatives of the Board and other bodies. This meeting was held in Pretoria on 15 October 1955 under the chairmanship of Dr. B. M. Clark, Deputy Chief Health Officer, and was attended by Mr. F. J. Todd (the President) and 4 other members of the Pharmacy Board, 2 other pharmacists, a representative of the Department of Health, Dr. H. Graf (Deputy Director of Veterinary Services) and Dr. J. N. W. Loubser, who was appointed at short notice to attend for the Medical and Dental Council.

The Council's Executive Committee had informed the Secretary for Health that they had re-affirmed a previous resolution of the Council on this matter, which reads as follows: 'That a medical practitioner should not place himself in economic competition with a chemist and druggist, but that the Council cannot agree to any encroachment on a medical practitioner's right to do his own dispensing, as is envisaged in the suggested amendment to the Act.'

In appointing Dr. Loubser to represent the Council at the discussion of 15 October the Executive Committee also requested him to draft a memorandum on the subject. The memorandum was now before the Council, with the aforementioned memorandum of the Pharmaceutical Society, a resumé of the discussions of 15 October, and a resolution by the Executive Committee 'that the

Secretary for Health be informed that the Council was in favour of maintaining the inherent right of medical practitioners to dispense, as provided for in section 73 of the Medical, Dental and Pharmacy Act.'

Since the Pretoria discussion the South African Pharmacy Board has written asking for a joint meeting of the Council and the Board, 'expressing its disappointment at the negative character of the Pretoria meeting' and urging that a full-scale debate should be held at a joint meeting of the Council and the Board. This letter was now also before the Council.

VIEWS OF PHARMACISTS

The views of the pharmacists are fully set out in the Pharmaceutical Society's memorandum and the resumé of the discussion of 15 October. It is stated that only one half of the pharmacists are dispensing medicines prescribed 'by the medical, dental and veterinary professions' because 'the great majority of medical practitioners in the rural areas do their own dispensing.' The dispensing activities of doctors are stated to consist today 'of a major trading activity in open competition with chemists and druggists' and 'carried on contrary to the public interest, particularly in regard to the poorer sections of the community and the native and coloured peoples.' One speaker at the Pretoria meeting declared that the very existence of chemists and druggists was affected; he expressed the opinion 'that they had already passed beyond the cross-roads and were now on the road leading to extinction.' (It was stated in the Society's memorandum that in 1928 there were 986 registered chemists and druggists, and 856 retail pharmacies, of which 573 were in the 9 principal urban areas, and that on 1 August 1955 there were 2,576 registered chemists and druggists and 1,600 retail pharmacies, of which 1,049 are in the 9 urban areas and 551 in country towns.) The Society's memorandum asks for an amendment of section 73 of the Act to preclude any doctor in private practice from dispensing if there is a chemist and druggist carrying on business as an open pharmacy *within* 5 *miles* 'of any point at which the doctor carries on practice.'

Dr. Graf (Deputy Director of Veterinary Services) said in the discussion that he had come to the conclusion that the cause of the difficulties experienced by the pharmaceutical profession was not so much competition from the doctors who did their own dispensing as the evolution of their own profession. He said the activities of large manufacturing chemists and druggists who produce ready-made pharmaceutical supplies had virtually reduced the retail chemist and druggist to a mere handler of medicine. A second cause, in his opinion, was the fact that many lines of made-up drugs were sold by general dealers.

VIEWS OF DOCTORS

Dr. Loubser, in the discussion, expressed the views of the Executive Committee of the Medical and Dental Council. What he said is well summarized in the memorandum he wrote at the request of the Executive, from which the following is extracted:

'In my opinion the primary object of Act 13 of 1928 was and is to protect the interests of the public and not the economic advancement of the relevant professions.

'The causes of the reputed difficulties of which the retail chemists and druggists complain are threefold:

1. According to their own figures there is a surplus of chemists and druggists. Here the remedy lies in their own hands.

2. As so aptly put by Dr. Graf, they are being smothered by the evolution of their own profession and have thereby been reduced to mere handlers of medicines.

3. Competition by medical practitioners dispensing for their own patients. This can only be removed, in my opinion, at the expense and to the detriment of the general public and (its removal) *should therefore never be agreed to by the Medical and Dental Council.*

'To give a few examples of what would be the results if the amendment of section 73, as demanded by the pharmacists, was adopted:

(i) Large sections of the European rural population and practically all the non-Europeans would fail to grasp why they should pay the doctor merely for an examination and a 'note' and have *again to pay* the chemist for the medicine.

(ii) Can one visualize a patient consulting a doctor and then having to travel 5 *miles* to have his prescription made up? Yet this is exactly what the chemists are now demanding.

(iii) If the drug is one which is to be injected then the patient will first have to go 5 miles to obtain it and bring it back again for the doctor to inject it.

(iv) What happens after 5 p.m. or on week-ends, when the pharmacy is closed? Can and will the chemists in a rural area provide a 24-hour service throughout the week?

'It should be clear to anyone that if section 73 of the Act were to be so amended as demanded by the chemists and druggists the whole situation in the rural areas would become fantastic and impose great inconvenience, waste of time, and hardship, on the public.'

In the course of discussion in the Council Dr. M. Shapiro expressed the opinion that the Pharmacy Board were asking for joint discussion when the matter on their side was cut and dried. It was decided that the Executive Committee should meet representatives of the Pharmacy Board.

NEW RULES OF THE SOUTH AFRICAN MEDICAL AND DENTAL COUNCIL

RULES FOR THE REGISTRATION OF PSYCHOLOGISTS

Government Notice No. 2489 *of* 23 *December* 1955

The Minister of Health has approved of the following rules regarding the registration of psychologists made by the South African Medical and Dental Council under section 32 of the Medical, Dental and Pharmacy Act No. 13 of 1928.

1. The Council may grant a registration certificate as a psychologist to any applicant who:

(*a*) holds at least a Master's Degree in Psychology granted after examination by a university approved by resolution of the Council from time to time; provided that the applicant further produces proof that he has spent a minimum period of five years on the study of psychology as the main subject, as well as of other subjects related to psychology, at an approved university; and

(*b*) submits specific evidence of satisfactory training in psychological procedures; and

(*c*) subsequent to having completed the academic study prescribed in paragraph (*a*) *supra* and having acquired the training specified in paragraph (*b*) *supra*, he has had at least six months practical experience in psychological procedures in a full-time capacity acceptable to the Council.

2. Where, in the case of an application for a registration certificate, the University on whose degree the application is based, or the institution at which the training prescribed in paragraph (*b*) of rule 1 is acquired, have not already been approved by the Council, the applicant shall be required to cause the Council to be furnished with authoritative information as to the standard of training given thereat, whereupon, if such standard of training is considered satisfactory by the Council, such university or institution shall be approved.

3. An applicant for registration under these regulations shall be required to submit the qualifications by virtue of which he claims to be registered, together with:

(*a*) a declaration of identity sworn before a Justice of the Peace or Commissioner of Oaths;

(*b*) a certificate of good character signed by a registered person, a Minister of Religion, Magistrate or other responsible person;

(*c*) a certificate from a registered medical practitioner to the effect that the health of the applicant is not such as in the interest of patients to render it inadvisable that such applicant should engage in psychological procedures;

(*d*) a sworn declaration before a Justice of the Peace or Commissioner of Oaths by the applicant that he has never been debarred from practice in any country by reason of misdemeanour or professional misconduct;

(*e*) a fee of £5 for registration; and

(*f*) a birth certificate, or, if the applicant is unable to furnish a birth certificate, a baptismal certificate or satisfactory evidence that he has attained the age of twenty-one years.

4. The Council may require proof of the authenticity and validity of the qualification.

RULES FOR THE REGISTRATION OF PSYCHOMETRISTS

Government Notice No. 2490 *of* 23 *December* 1955

The Minister of Health has approved of the following rules regarding the registration of psychometrists made by the South African Medical, and Dental Council under section 32 of the Medical, Dental and Pharmacy Act No. 13 of 1928:

1. The Council may grant a registration certificate as a Psychometrist to any applicant who:

(*a*) holds at least a Bachelor's Degree with Psychology as a major subject granted after examination by a university approved by resolution of the Council from time to time; provided that such a degree was obtained after a minimum period of three years' full-time attendance at such a university, or such other period of part-time attendance as the Council may regard as the equivalent thereof;

(*b*) submits specific evidence of satisfactory training in psychometric techniques such as tests and measurements, statistics and abnormal psychology; and

(*c*) subsequent to having obtained the qualification specified in paragraph (*a*) *supra* and having acquired the training specified in paragraph (*b*) *supra* he has had at least six months' practical experience in psychometric techniques in a full-time capacity under supervision of a registered psychiatrist, a registered psychologist or a psychologist previously approved by the Council.

2. 3. 4. (*Same as clauses* 2, 3 *and* 4 *of the regulations under Government Notice No.* 2489 *of* 1955.)

RULES REGARDING THE CONDITIONS UNDER WHICH REGISTERED PSYCHOLOGISTS MAY CARRY ON THEIR CALLING

Government Notice No. 2491 *of* 23 *December* 1955

The Minister of Health has approved of the following rules regarding the conditions under which registered psychologists may carry on their calling made by the South African Medical and Dental Council under paragraph (*k*) of sub-section (2) of section 94 of the Medical, Dental and Pharmacy Act No. 13 of 1928:

1. A registered psychologist shall not:

(*a*) undertake any psychological procedures for any person except in association with a team of which at least one member shall be a registered medical practitioner, and at least one member shall be a registered psychologist;

(*b*) make an independent diagnosis or treat a case therapeutically except in association with a team as decribed in paragraph (*a*) *supra;*

(*c*) apply drugs, medicines or surgery in the examination or treatment of any person;

(*d*) for the purpose of promoting his own professional interests, directly or indirectly advertise himself in any manner or procure, sanction or acquiesce in the publication of matter commending or directing attention to his professional skill, knowledge, services or qualifications or deprecating the professional skill, knowledge, services or qualifications of any other registered person; provided that he shall be at liberty to call upon, circularise or write to registered medical practitioners, registered psychologists, such other psychologists as may be approved from time to time for the purpose of these regulations by the Council, and hospitals, universities, guidance bureaux and other institutions where teams of medical practitioners and psychologists function.

2. A registered psychologist contravening or failing to comply with any of the above rules shall be liable to a fine not exceeding £10.

NOTE.—In addition to medical auxiliaries work, psychologists may also engage in work which lies in the educational or occupational fields; these rules specifically do not apply to persons performing such work.

RULES REGARDING THE CONDITIONS UNDER WHICH REGISTERED PSYCHOMETRISTS MAY CARRY ON THEIR CALLING

Government Notice No. 2492 *of* 23 *December* 1955

The Minister of Health has approved of the following rules regarding the conditions under which registered psychometrists may carry on their calling made by the South African Medical and Dental Council under paragraph (*k*) of sub-section (2) of section 94 of the Medical, Dental and Pharmacy Act No. 13 of 1928:

1. A registered psychometrist shall not:

(*a*) undertake any psychometric procedures for any person except under the direction and control of a registered medical practitioner, a registered psychologist or such other psychologists as may be approved from time to time for the purpose of these rules by the Council;

(*b*) make an independent diagnosis or treat a case therapeutically;

(*c*) apply drugs, medicines or surgery in the examination of any person;

(*d*) for the purpose of promoting his own professional interest, directly or indirectly advertise himself in any manner of procure, sanction or acquiesce in the publication of matter commending or directing attention to his professional skill, knowledge, services or qualifications or deprecating the professional skill, knowledge, services or qualifications of any other registered person; provided that he shall be at liberty to call upon, circularise or write to registered medical practitioners, registered psychologists and such other psychologists as may be approved from time to time for the purpose of these rules by the Council.

2. A registered psychometrist contravening or failing to comply with any of the above rules shall be liable to a fine not exceeding £10.

AMENDMENT OF THE RULES REGARDING CONDUCT OF WHICH THE COUNCIL MAY TAKE COGNISANCE

Government Notice No. 2493 *of* 23 *December* 1955

The Minister of Health has approved of the amendment of the rules regarding conduct of which the Council may take cognisance, made by the South African Medical and Dental Council under sub-section (2) of section 94 of the Medical, Dental and Pharmacy Act No. 13 of 1928, and published under Government Notice No. 49 of 11 January 1946 as amended:

(*a*) *Rule* 1 *paragraph* (5) *is altered so as to read: The printing on envelopes of any information other than the practitioner's name without his title or any qualification, and a return address in case of non-delivery.*

(*b*) In rule 13 paragraph (1), by the substitution of the following schedule of specialities and designations of specialities for the present schedule:

(*Here follows the same schedule as in clause* 3 *of the Rules regarding the Registration of Specialities—Government Notice No.* 129 *of* 1956—*see* Journal *of* 11 *February* 1956, *vol.* **30,** *p.* 151; *with, however, dermatology and venereology bracketed together, neurology and psychiatry bracketed together, and diagnostic and therapeutic radiology bracketed together.*)

(*c*) In rule 19, by substituting the following caption for the present caption:

"19. Professional appointments, other than:

(i) appointment made under the Public Service Act;

(ii) appointments made under the Hospital Ordinances of the various Provinces;

(iii) appointments of medical practitioners and dentists to academic or research posts at Universities and research institutions and similar institutions."

(*d*) By the deletion of the proviso to rule 19 (1).

(*e*) By the deletion of the proviso to rule 19 (4).

(*f*) In rule 19 (*bis*), by substituting the following caption for the present caption:

("19. (*bis*) Professional appointments made under the Hospital Ordinances of the various Provinces; and to Universities and research institutions."

(*g*) In rules 19 (*bis*),* paragraph (1) by the substitution of the words "under the Hospital Ordinances of the various Provinces, or any professional appointment to a University or Research Institution", for the words "to a University or Research Institute".

(*h*) In rule 19 (*bis*),* the addition after sub-paragraph (*c*) of paragraph (1), of the following note:

"NOTE.—Transfers or promotions in the normal course within a service will not be regarded as new appointments, and such posts need not be re-advertised."

* See *Journal* of 24 April 1954 (vol. **28**, p. 365).

AMENDMENT OF THE REGULATIONS REGARDING THE REGISTRATION OF CERTAIN CLASSES OF MEDICAL PRACTITIONERS

Government Notice No. 2512 *of* 23 *December* 1955

His Excellency the Governor-General has been pleased, under the powers vested in him by sub-section (2) of section *twenty-two* of the Medical, Dental and Pharmacy Act, 1928 (Act No. 13 of 1928), read with sub-section (1) of section *ninety-four*, and after considering a recommendation of the South African Medical and Dental Council, to amend the regulations regarding the registration of certain classes of medical practitioners published under Government Notice No. 256 of the 7th February, 1947, as amended, by:

(*a*) the substitution in regulation 2 for the words "from the provisions of paragraph (*b*) of the proviso to sub-section (1) of section *twenty-two* of the Act" of the words "from the provisions of sub-paragraph (ii) of paragraph (*a*) of the proviso to sub-section (1) of section *twenty-two* of the Act";

(*b*) the insertion after paragraph (*c*) of regulation 2 of the following paragraph:

"(*d*) persons employed in a full-time capacity by the State, otherwise than by any provincial administration or by the Administration of South West Africa":

(*c*) the insertion after regulation 6 of the following regulation:

"7. every person referred to in paragraph (*d*) of regulation 2 and registered as a medical practitioner with the Council in terms of these regulations may, by virtue of such registration, perform only such acts specially pertaining to the calling of a medical practitioner as he is required to perform in terms of his contract of employment with the State or the Administration of South West Africa";

(*d*) the renumbering of existing regulation 7 as 8.

The effect of this amendment is (1) *to bring the regulations in Government Notice No.* 256 *of* 1947, *as amended, into line with the amendment of section* 22 *of the principal Act* (see *section* 6 *of the Medical, Dental and Pharmacy Amendment Act No.* 29 *of* 1954, *set out on pp.* 595 *and* 596 *of the* Journal *of* 10 *July* 1954 (*vol.* 28); *and* (2) *to create an additional class of medical practitioners to be specially registered under the said regulations and to provide for the limitation of the acts this class of practitioner may perform. The creation of this class of practitioner is referred to in the reports of meetings of the South African Medical and Dental Council published in this* Journal *on* 1 *October* 1955 (*vol.* **29,** *pp.* 942 *and* 943) *and in the current number of the* Journal *on page* 345.

NEW PREPARATIONS AND APPLIANCES : NUWE PREPARATE EN TOESTELLE

Penicillin-V, Lilly (phenoxymethyl penicillin) Penicillin-V is a new penicillin intended for oral use, and representing a major change in the molecule of Penicillin G. Its biosynthesis was first achieved by Behrens and associates of the Lilly Research Laboratories[1]. Penicillin-V is unique in being almost completely acid-resistant, but readily soluble in an alkaline medium. Clinical studies have shown that it produces blood levels which are consistently higher and more prolonged than those obtainable with any other form of penicillin for oral use[2-4] In addition Penicillin-V has been shown to be more active than Penicillin G against strains of staphylococcus, including certain strains resistant to the latter. Urine concentrations are double those obtained from the same dose of oral Penicillin G.[5] Toxicity studies indicate that Penicillin-V is at least as safe as other penicillins.

Clinical Reports. Haussmann and Zischinsky[6] treated 106 patients with oral Penicillin-V. The cases treated included scarlet fever; lymphadenitis; peritonsillitis; pneumococcal infections; otitis; mastoiditis and pleurisy. In practically every case the authors reported a rapid fall in temperature. The authors concluded that 'this preparation is in all respects equal to Penicillin G given parenterally.' Schindelmaisser reported, 'It always effected the same results as might be expected from parenteral use.' Sinios[8] used oral Penicillin-V on 31 patients in a scarlet fever ward for the eradication of streptococci from the noses and throats of these patients. In every case, bacteriological follow-up examination of the nasopharynx gave results identical with those seen in patients treated with other forms of penicillin. Bowerbank (31 cases)[9] and Dove (24 cases)[10] have each reported briefly in this country on their results in a variety of common infections including tonsillitis, otitis media, puerperal mastitis, and bronchopneumonia, and in measles prophylaxis. Favourable results were obtained in the great majority of cases.

Indications. 'Pulvules' Penicillin-V may be used to treat almost all bacterial infections due to penicillin-sensitive organisms. In very acute infections an injection of Penicillin G may be given for the first dose; but thereafter oral Penicillin-V may be expected to give the same results as parenteral treatment. Penicillin-V should be of especial value for the prophylaxis of rheumatic fever in patients with a previous history of this disease.

Dosage. In adults, the average dose in moderate infections is 1 capsule (125 mg.) 3 times daily, increased to 1 capsule 4 or 6 times daily in more serious infections.

In children the dose should be determined by the severity of the infection, and often the full adult dosage will be needed. Younger children and infants may be given respectively ½ and ¼ of the adult dose, in the form of suspension Penicillin-V Lilly paediatric (62·5 mg. per large teaspoonful).

'Pulvules' Penicillin-V Lilly may be given either before or after meals, as they are absorbed efficiently when given in either the fasting or non-fasting state.

The following table shows comparative blood levels of Penicillin-V and Penicillin G in human subjects after a single *oral* dose of 200,000 units.

AVERAGE SERUM LEVELS (UNITS/ML)

Preparation	*No. Patients*	1 *hr.*	2 *hr.*	4 *hr.*	6 *hr.*	8 *hr.*
Penicillin-V (200,000 units)	30	0·581	0·514	0·351	0·129	0·026
Potassium Penicillin G. (200,000 units)	29	0·405	0·236	0·065	0·011	0·001

As the percentage of patients showing positive titres tends to fall fairly quickly after the sixth hour, the frequency of dosage should be increased in serious infections.

1. Behrens, O. K., *et al.* (1948): J. Biochem. **175,** 793.
2. Brandl, E. Giovannini, M., and Margreiter, H. (1953): Wien. med. Wschr., **103,** 602.
3. Brandl, E., and Margreiter ,H. (1954): Oesterr. chem. Ztschr., **55,** 12.
4. Giovannini, M. (1954): Wien. med. Wschr. **104,** 910.
5. Wright, W. W., *et al.* (1955): Antibiotic Med. **1,** 490.
6. Hausmann, E., and Zischinsky, H. (1953): Wien med. Wschr., **103,** 725.
7. Schindelmaisser, F. (1954): *Ibid.*, **104,** 369.
8. Sinios, A. (1954): Med. Klin. **49,** 203.
9. Bowerbank, A. G. (1955): Brit. Med. J. **2,** 1028.
10. Dove, W. L. (1955): *Ibid.*, **2,** 1090.

* * *

Diaginol 25 *Solution.* Radiologists will be interested in the introduction by Maybaker (S.A.) (Pty.) Ltd. of 'Diaginol' 25% solution. This new presentation of sodium acetrizoate is specially designed for cerebral angiography and provides adequate contrast with minimal side-effects. In a series of 192 patients in which 'Diaginol' 25% solution was used, only 2 cases of side-effects were reported. Other 'Diaginol' solutions available are 30%, 50% and 70%. 'Diaginol' 25% solution is issued in 20 c.c. ampoules.

BOOK REVIEWS : BOEKRESENSIES

J.A.M.A. CLINICAL ABSTRACTS

J.A.M.A. Clinical Abstracts of Diagnosis and Treatment. Published with the Approval of the Board of Trustees, American Medical Association. Pp. 627 + vi. $5.50. London and New York: Grune and Stratton, Inc. 1955.

Contents: 1. Internal Medicine. 2. Surgery. 3. Neurology and Psychiatry. 4. Pediatrics. 5. Gynecology and Obstetrics. 6. Dermatology. 7. Urolgy. 8. Ophthalmology. 9. Otolaryngology. 10. Therapeutics. 11. Pathology. 12 Radiology. 13. Anesthesia. 14. Physiology. Index.

One of the features of the Journal of the American Medical Association is 'Medical Literature Abstracts' to be found towards the end of the Journal. A great number of medical journals (more than 1,200) are referred to, their contents listed and the most important articles abstracted. Now, for the first time, some of these have been collected and are being presented in one volume. It is proposed to publish these abstracts annually; a sign of the times. Over the past few years there has been an increasing number of publications presenting abstracts of medical literature. The number of publications of this nature reflect the enormous number of medical journals available to the medical profession. While an abstract can never act as a substitute for the original article, the original can be consulted by those interested and the abstracts constitute a means of keeping in touch with current medical work and thought.

The J.A.M.A. Clinical Abstracts cover all aspects of medical practice, such as Medicine, Surgery, Radiology, Therapeutics etc. These are covered in some 612 pages and are well indexed. One of the better publications of this class.

I.G.

MEDICAL PROGRESS 1955

The British Encyclopaedia of Medical Practice, Including Medicine, Surgery, Obstetrics, Gynaecology and Other Special Subjects: Medical Progress 1955. Editor in Chief: The Lord Horder, G.C.V.O., M.D., F.R.C.P. Pp. 311 + vi. London: Butterworth & Co. (Publishers), Ltd., South African Office—Butterworth & Co. (Africa) Ltd., Durban. 1955.

Contents: 1. Critical Surveys. 2. Drugs. 3. Abstracts. Index.

The British Encyclopaedia of Medical Practice is a well known publication and is to be found on the shelves of many a medical practitioner. Additions are constantly being made to medical knowledge and to keep the Encyclopaedia up to date a volume of 'Medical Progress' is published annually.

'Medical Progress 1955' follows the lines of the preceeding volumes. Accepted authorities review some of the advance made in the past year. The reviews are brief and deal with but 'a few of the salient developments. Each section is followed by a list of references.

I.G.

POCKET PRESCRIBER

The Pocket Prescriber and Guide to Prescription Writing. By Alistair G. Cruikshank, F.R.C.P.E. Sixteenth Edition. (Pp. 291 + vii Price 5/– + 4d. postage) E. & S. Livingstone Ltd., Edinburgh and London. 1956.

Contents: Preface. Some Points in Practice. Some Points in Prescribing. Incompatibilities. Synonyms for Drugs and Medical Preparations. Prescriptions for the following Diseases—Alimentary Diseases, Blood Diseases, Children's Diseases, Circulatory Diseases, Ear, Nose Throat and Eye Diseases, General and Metabolic Diseases, Infectious Diseases, Nervous Diseases, Respiratory Diseases, Skin Diseases, Urinary Diseases, Women, Diseases of. Diets. Selected National Formulae. Some Modern Remedies. Administration of Sulphonamides. Penicillin. Chloramphenicol. Streptomycin. Chlortetracycline. Erythromycin. Oxytetracycline. Tetracycline. Posological Tables—Adults—Children. Enemata. Vitamins. Average Body Weights. Incubation Periods. Poisoning: Emergency Antidote Case. D.D.A. Regulations. Appendix—Tables of Weights and Measures —Imperial and Metric. Equivalents of English Weights to Grammes. Equivalent Measures of Capacity. Table of Strength of Solution. Methods for Converting Grains into Grammes and vice versa. Numerals commonly used in Prescriptions. Table of Quantities. Abbreviations. Proprietary Preparations. Index to Prescriptions.

This useful and inexpensive little book should be in the hands of every general practitioner and senior student. It is a perfect mine of information and of such modest size that it will fit in an ordinary waistcoat pocket. The young may often be at a loss for a good well—tried remedy, especially for those common ailments about which hospital teaching is silent, and for the elderly an 'aide-memoire' never comes amiss. Personally I have found the chapter on 'some modern remedies' especially useful; there are so many new and strange names that it is difficult to keep them all in mind. I cannot imagine any category of general practitioner who will not be happier for the possession of this little volume; the fact that it is now in its 16th edition speaks for itself.

F.R.L.

OBSTETRICS AND GYNAECOLOGY

The Year Book of Obstetrics & Gynecology. Edited by J. P. Greenhill, B.S., M.D., F.A.C.S. 1955—1956 Series (Pp. 544). Chicago: The Year Book Publishers, Inc.

Contents: Obstetrics. Pregnancy: Physiology, Abortion, Ectopic Pregnancy, Complications, Toxemia. Labor: General, Analgesia and Anesthesia, Complications, Operative Obstetrics. Uterine Hemorrhage. Puerperium. The Newborn. *Gynecology.* General Principles. Diagnosis. Infertility. Operative Technic. Infections. Nonmalignant Neoplasms. Malignant Tumors. Menstrual Disorders. Endocrinology.

The 1955-56 Year Book of Obstetrics and Gynaecology maintains the high standard set by its predecessors. This comprehensive review embraces all aspects of obstetrics and gynaecology, and continues to be one of the most stimulating medical books published.

The scope of the book is so wide that in this short review it is only possible to touch here and there on the many subjects it deals with.

The problem of how to manage women who have contracted rubella during the first 4 months of pregnancy remains an unsolved one. While it is recognized that a distinct rubella syndrome, characterized by congenital cataract, deafness and heart disease, may manifest itself in some of the newborn, it is also true that a normal full-term child may be born in these cases. While some authorities hold the view that termination of pregnancy is indicated one feels that as the baby has a choice of being normal, the pregnancy should not be terminated. It is well to point out that according to South African law the possibility of foetal abnormality is not a valid reason for terminating pregnancy.

The literature concerning Caesarian section is again enormous and the indications for this operation continue to expand. James T. Louw* points out that foetal distress is an unsatisfactory indication for section and one that is easily abused. Greenhill is of the opinion that a previous Caesarian is an indication for repeat operation, even if the indication for the first section is no longer present. This opinion however is by no means a general one, and there are many who consider that a vaginal delivery may well be allowed in some cases where the cause for the original Caesarian section no longer exists. The trial labour in these cases must be conducted in a well-equipped maternity hospital.

In the section on gynaecology a large number of articles on the subject on cervical carcinoma indicate the tremendous interest shown in this subject.

As always, this Year Book is one of the best investments for the busy medical practitioner interested in obstetrics and gynaecology.

T. St. V. B.

* S. Afr. Med. J., 1955, **29**, 160.

TEXT-BOOK OF BACTERIOLOGY

Topley and Wilson's Principles of Bacteriology and Immunity. Fourth Edition. Volumes I and II. By G. S. Wilson, M.D., F.R.C.P., D.P.H. and A. A. Miles, *C.B.E.*, M.A., M.D., F.R.C.P. Pp. 2331 + cxv. £8 0s. 0d. set of two Volumes. London: Edward Arnold (Publishers) Ltd. 1955.

Contents: Volume I. Part I—General Bacteriology, Chapters 1-11. *Part II—Systematic Bacteriology*, Chapters 12-41. Index to Volumes I and II. *Volume II. Part III—Infection and Resistance*, Chapters 42-56. *Part IV—The Application o Bacteriology to Medicine and Hygiene*, Chapters 57-93. Index to Volumes I and II.

It is becoming increasingly difficult for a single individual or even a group of individuals to keep in touch with all branches of the rapidly advancing science of bacteriology. The authors of this text-book are themselves aware of the difficulty but they have nevertheless succeeded in bringing the 4th edition fully up to date.

According to their own statement the book is becoming increasingly a reference work for bacteriologists and less a suitable text-book for undergraduate medical students. This, however, is not an entirely acceptable statement. Many of its chapters certainly

contain more detail and deal in a more comprehensive manner with the subjects under consideration than the average undergraduate requires, nevertheless the book remains the outstanding text-book of bacteriology in the English language.

The authors are to be congratulated on the thoroughness with which practically every chapter has been revised. A great deal of subject matter not directly concerned with medical bacteriology has been eliminated and new discoveries given the appropriate prominence in their respective chapters. It is impossible to refer to all the major changes which have been brought about in the text. The following have been chosen almost at random:

The chapter dealing with antibiotics has been enlarged to give more detail of the structure and mode of action of penicillin and to include concise sections on some of the newer antibiotics.

Appropriate chapters (such as those on morphology of bacteria and bacterial variation) now deal also with some aspects of bacterial genetics. This field has risen to great prominence during the last few years and the authors are remarkably successful in giving a very concise and lucid introduction to the subject.

The virus field too has received attention and significant changes have been brought about in the sections of the text-book dealing with bacterial and animal viruses. The bacteriophage chapter in particular gives a very concise account of the newer developments in a field which has attracted the attention of an increasing number of research workers throughout the world.

The chapters on systematic bacteriology, as is the case with the subject matter they deal with, have undergone least change.

The second volume, as previously, is concerned with applied bacteriology and immunology. This too incorporates newer knowledge of epidemiology, prevention and treatment. Major changes have been brought about in some chapters, such as that dealing with infective enteritis in infancy, and those dealing with the virus diseases such as poliomyelitis. It is in the study of epidemiology and prevention that the second volume is particularly useful.

This book, because of the extensive bibliographies at the end of each chapter, remains an outstanding reference work for use of the student in bacteriology. It is, however, also an authoritative work to which physicians, epidemiologists and public health authorities can refer with confidence for the problems concerning infective diseases with which they become confronted from day to day and for which they seek a reliable and ready answer.

W.v.d.E.

MEDICINE FOR THE GENERAL READER

Is That You Doctor? Tabloids out of the Medical Bag. By Imhotep. Pp. 207 + xi with illustrations. 15s. 0d. Cape Town Howard B. Timmins. 1955.

Contents: 1. The Doctor, the Patient and the Disease. 2. What we Inherit. 3. Acidity. 4. Mainly for Women. 5. Scientific Birth Control. 6. Skelton Health. 7. My Pore Feet. 8. Headaches and Heartaches. 9. Growing up. 10. Mother and Child. 11. Acne and Eczema. 12. The Bedside Manner. 13. The Specialist, The Generalist and the Public. 14. The 'Miracle' Drugs.

The author is well known under his nom-de-plume of 'Medicus' as a writer on medical subjects of general interest to the public, and he enjoys a wide popularity amongst readers of the Argus group of newspapers in which his articles are syndicated.

His selection of subjects in this book is wide and the chapters are written in a way which will appeal to the ordinary reader and show the insight of a man who has the broad humanity and understanding of the general practitioner of experience.

This is a challenging book which should be widely read. Although designed for the lay public, it could be read with profit by all doctors, especially younger general practitioners, who can learn a great deal from it as a guide in their approach to the everyday problems of their patients.

A.H.T.

CORRESPONDENCE : BRIEWERUBRIEK

ELI LILLY MEDICAL RESEARCH FELLOWSHIP (SOUTH AFRICA)

To the Editor. Applications for the 1956 award of this Fellowship may now be submitted and must reach the undersigned not later than 30 April 1956.

The detailed conditions governing the award of this Fellowship were published in the February 1956 issue of *Medical Proceedings* at p. 91, or may be obtained from the undersigned.

Ph.D., M.B., Ch.B., F.R.S., S.A.

H. A. Shapiro,
Honorary Chairman: Selection Committee
Eli Lilly Medical Research Fellowship,
(South Africa)

P.O. Box 1010,
Johannesburg.

THE ENDOCRINE CLINIC, GROOTE SCHUUR HOSPITAL, CAPE TOWN

To the Editor. We are interested in seeing patients with primary amenorrhoea or any form of intersexuality. May we use your columns to invite practitioners who encounter such cases in this locality to refer them to our Clinic? We should like to ask practitioners if they would be good enough to communicate with us either by telephone or by letter. Our home telephone numbers are: W. P. U. Jackson 64395, R. Hoffenberg 7-5397.

R. Hoffenberg

The Endocrine Clinic,
Groote Schuur Hospital
Observatory
Cape

23 March 1956.

TWO CASES TREATED BY HYPNOSIS

To the Editor. I would like to describe two cases in which unusual aspects of hypnotherapy were demonstrated.

Case 1, Mrs. M.M., age 32, a migraine sufferer. She entered a trance easily at her first induction, and had been treated at weekly intervals for 3 months. The patient developed a classical migraine attack at the end of this period, and telephoned to me in the evening, asking if I could see her the next day. On the basis of her excellent response to hypnosis I decided to try hypnotizing her over the telephone. She was able to place a stretcher beside her telephone, and she was then instructed to lie flat on her back, the telephone at her ear, and to say 'yes' as each stage of the relaxation was achieved. The hypnotic induction was similar to the method used in my surgery for this particular patient. Her arm was caused to lift, and on touching her face she was to enter into a deep sleep. At this stage I suggested to her that she sleep for 15 minutes and awake free of pain. She was then to telephone to me. After repeating the instructions once again I replaced my receiver. A quarter of an hour later I received a call from a highly surprised, pain-free and grateful patient....

Case 2, Miss M.B., age 23, a highly strung, nervous young woman requiring extensive dental treatment. She entered into a trance state easily and was able to produce at a preparatory session in my surgery, a complete anaesthesia of her gums, lips and tongue, similar to the anaesthesia she experienced in her previous dental injections. In the dental chair these sensations were reproduced, and since it was clear that the patient was going to spend a considerable time under hypnosis, I suggested to her that she would probably dream she was seeing a film and would enjoy it. I left, and returned 1¼ hours later. Four fillings had been completed by a now unhurried and undisturbed dentist. The patient on waking stated that she had heard the dentists's drill as though in another building. She expressed amazement and delight at being told her fillings were completed....' and you know Doctor, I've been dreaming I was watching the film "The Robe" '

'For all the happiness mankind can gain
Is not in pleasure, but in rest from pain.'

B. W. Levinson

S.A.W.A.S. Hall
Main Road
Muizenburg

23 March 1956.